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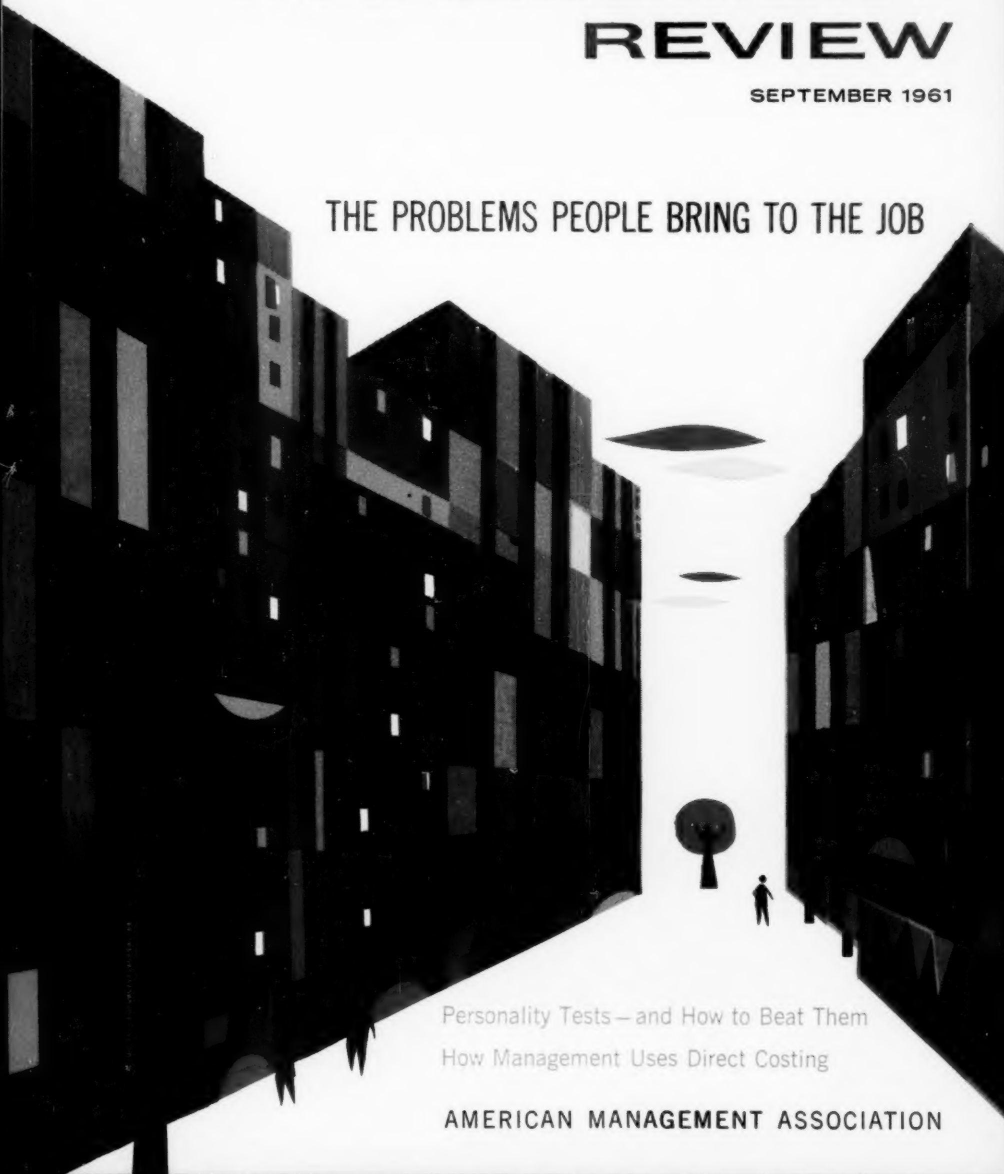
*the month's best in business reading*

# MANAGEMENT REVIEW

SEPTEMBER 1961

## THE PROBLEMS PEOPLE BRING TO THE JOB



Personality Tests—and How to Beat Them

How Management Uses Direct Costing

AMERICAN MANAGEMENT ASSOCIATION

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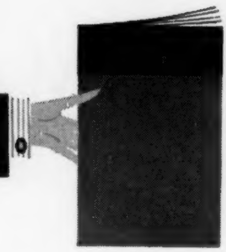

- **People with Problems . . .** Companies are composed of people —and people have problems. On page 4, SAMUEL B. KUTASH and LYDIA STRONG present a sympathetic and extremely practical discussion of the emotional problems that any executive is bound to encounter from time to time in his dealings with subordinates and fellow executives on the job.

- **. . . and Problems with People.** Supplementing the above article, the cartoon feature on page 14 illustrates some of the ways in which an executive can mishandle the problems of his subordinates.

- **Personality Plus.** The trouble with the personality tests used to screen out unacceptable candidates for jobs or promotions, says DARRELL HUFF (page 30), is (1) they are applied blindly and (2) they aren't much good in the first place. With this in mind, he points out some methods of insuring that you can project the desired "personality" whenever one of these tests is imposed on you.

- **Direct Costing.** On page 54, K. S. AXELSON tells why more and more companies are turning to direct costing in lieu of traditional cost systems and explains how it can be used to develop timely and accurate information for profit planning, pricing, and cost control.

— the Editors

SEPTEMBER 1961
VOLUME 50, NO. 9

# MANAGEMENT REVIEW

## SPECIAL FEATURES



## BUSINESS DIGESTS OF THE MONTH



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## THE MONTH'S BEST IN BUSINESS READING



### DEPARTMENTS



COVER ART BY PAGEANT STUDIO

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MANAGEMENT REVIEW is published monthly by the American Management Association, Inc., at 1 Sherman Avenue, Jersey City 7, N. J. Main offices at 1515 Broadway, Times Square, New York 36, N. Y. Form 3579 should be sent to 1515 Broadway, Times Square, New York 36, N. Y. Second class postage paid at Jersey City, N. J. Subscriptions: $7.50 per year (nonmembers, $12.50). Single copies: $1.00 (nonmembers, $1.25). Volume 50, No. 9, September, 1961.

Changes of address should be forwarded to the publishers *six weeks in advance*, and postal zone numbers should be included in all addresses.



An index to MANAGEMENT REVIEW is published annually with the December issue. The contents are also indexed in the Industrial Arts Index through December, 1957, and from January, 1958, in the Business Periodicals Index. MANAGEMENT REVIEW is microfilmed by University Microfilms, Ann Arbor, Mich.

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*Consulting Editor*

# The Problems People Bring to the Job

A COMPANY EXECUTIVE runs into some strange situations. How, for example, would you deal with any or all of the following people, if you happened to be their boss?

- An executive who suffers from faintness and dizzy spells right after his promotion to an important position in the company.
- A supervisor who suddenly starts throwing temper tantrums.
- A man who accepts a new responsibility, but some time later hasn't even started to work on it.
- A "strict disciplinarian" whose department has the highest absence rate in the company.
- A capable department head who gets suspicious and fires each new assistant he hires, after a period of six months or less.

None of these examples is par-

A MANAGEMENT REVIEW SPECIAL FEATURE

ticularly unusual; fortunate indeed is the executive who can't match them with stories from his own experience. You have an efficient, smooth-running staff, then one person stops carrying his share of the load. Or he does his work, but he does other things as well—like taking unnecessary risks or starting unnecessary arguments — that make you start thinking of him as a problem.

### *It Can Happen Here*

A "problem employee" is usually an employee with a problem—one who carries a burden of trouble that interferes seriously with his performance. How widespread this situation is can be seen by a look at some of the statistics that appear with increasing frequency. We have all read, for example, that at least one out of ten employees suffers from an emotional disturbance that interferes with his job performance. This is certainly a conservative figure. Almost everyone, from the company president to the hourly-paid employee, at least occasionally suffers some sort of upset that interferes with his work. In fact, one study has indicated that two out of three dismissals from industry are caused by emotional rather than occupational incompetence.

At least half of the two million people "out ill" from work on an average day in the United States are suffering from some sort of emotional distress, says Dr. Harry Levinson of the Menninger Foundation. And, according to research recently published by the Joint Commission on Illness and Health, 19 per cent—almost one in five—of a representative group of American adults have felt close to a nervous breakdown at some time or other in their lives.

There are two important reasons for these high figures: (1) Mental illness is our most important health problem. (2) There is nothing unique about either the feelings or the behavior of the mentally ill. We all have our share of tensions, worries, unhappiness, even anger and suspicion, and we all act on such feelings to some extent. The difference is one of degree.

In most of us, positive mental health outweighs occasional or partial emotional disturbance. A single strange statement or one action that's out of line doesn't prove that a person is neurotic. What's more, not everyone who is neurotic fails in his job; certain traits may, in fact, help people to do better in some kinds of work.

### *When to Step In*

How, then, can an executive determine at what point he should become concerned about "strangeness" in an employee?

The answer is simple to state, although not always so simple to put into practice: A manager should be concerned when a subordinate's emotional problems result in job

problems. When he fails to meet acceptable standards, or when his behavior causes trouble with his colleagues or with the public—then, and only then, should the superior step in.

There are excellent reasons for this. In the first place, the job is the only area in which the company has a right to intervene. The time is past when employers felt they were entitled to concern themselves with an employee's personal affairs; unsolicited advice, no matter how well meant, is resented as meddling and will rarely produce the desired results.

In addition, most people work not only for pay, but to satisfy inner needs for security, recognition, and achievement. Certain people perform well *only* on the job—and, if properly placed, they are extremely successful. For such a person, the job is the only part of life that is *not* a problem, and any questioning of his outside affairs will seem a threat to his security.

### *What's the Problem?*

There are many types of problem behavior on the job: failure to meet standards; frequent absence; failure to cooperate with others; recklessness or, on the other hand, unwillingness to take legitimate risks; temper tantrums; helplessness and dependency; inability to delegate; unwillingness to accept legitimate authority; and many others. Almost any one of these symptoms can be shown at times, for logical reasons, by employees who are healthy in every sense; they can also be shown by employees who are suffering from a temporary physical illness or an emotional disturbance that the individual himself can straighten out. And they are sometimes indications of serious emotional problems that require professional help. The difficulty lies in determining how serious the problem really is.

### *Rational Explanations*

Irrational motivations can be important, but don't overlook the possibility of rational ones. Most people try—particularly on the job—to guide themselves by common sense, and a man who creates a problem for his superior may have excellent reasons for his behavior. The man who avoids a "legitimate risk" may know something about the situation that his boss doesn't know; a man who has "lost interest" may feel, rightly or wrongly, that he has not received credit for his previous hard work; a man who dumps all problems, even trivial ones, in his boss's lap may be reacting to a superior who often takes decisions out of his hands or is a chronic second-guesser.

The way to learn whether a situation has a reasonable explanation is to ask about it—and listen to the answer. With patience and receptiveness, you have an excellent chance of finding out what is wrong. Some people, however, are fairly

*"Serious emotional disturbance, or mental illness, can often be recognized either by a radical change in behavior or by an exaggeration of usual behavior to the point where it is no longer appropriate . . ."*

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inarticulate about their feelings, and some are reluctant to jeopardize their relationship with their boss by saying anything that he might take as criticism, or that might lower his estimation of them. In such cases, referring the man to a sympathetic counselor might give him a chance to get it off his chest. Needless to say, the company must be prepared to give serious consideration to any grievances brought out in this way.

### Temporary Problems

We all have our good and bad days; few of us remain entirely free from the influence of occasional worry, anger, or disappointment. When a subordinate brings a serious problem to work with him, he may temporarily become a problem himself. His work may suffer, he may get into senseless arguments, he may misinterpret well-meant comments. In such a situation, his superior will not lose face by returning a soft answer to an overwrought person. A temporary problem should straighten itself out in a day or two.

It might seem appropriate to ask the person if you can help him—but don't press the point. He might give you information about his personal life that he'll wish later he never mentioned.

If one person continues to have a series of temporary upsets, if his moods and his work become unpredictable, this is a sign of serious trouble.

### Deep-Rooted Disturbances

Serious emotional disturbance, or mental illness, can often be recognized either by a radical change in behavior or by an exaggeration of usual behavior to the point where it is no longer appropriate.

In some cases, a personality problem that has always existed shows up only after a change in assignment. The person seems to change radically, but what has really changed is the character of the job. There are some people, for example, whose degree of emotional disturbance and anxiety are almost directly proportional to the degree of success they achieve. The more successful they are, the more emotionally upset they become, until they are

eventually threatened with emotional collapse; yet many of them keep striving for advancement.

One example of this "success syndrome" is the case of a man who was referred for psychiatric treatment because he had developed severe phobic fears of a dramatic and disabling nature five months after his promotion to a top executive position in a large industrial corporation—a position for which he had striven for twelve years. He had panicky feelings when riding the elevator to the floor on which his new office was located, and he suffered from acrophobia—fear of heights—of such severity that he could not take airplanes for business trips and was afraid to go near the window of his office.

Psychiatric treatment disclosed, among other things, that the man was suffering from fear of the "dizzy heights" — the feeling of aloneness at the top, the fear of falling, the threatening fact that there was no place to go but down. In short, this man was too insecure to tolerate success.

### Family Problems

When an employee suffers a change for the worse in his family situation, he may reflect this change in his on-the-job behavior. One engineer supervising a research and development group had always seemed highly logical and scientific, if slightly inhuman with his staff. He had never been known to show anger, nor even to raise his voice when things went wrong. Suddenly, he started having outbursts of temper when he found any of his subordinates departing even slightly from his instructions. He destroyed an expensive experimental model in a temper tantrum. The vice-president of the firm referred him for psychological examination.

It developed that all through his life this man had depended on "science" to control others and himself. Although he had felt emotional at times, he had tried to squeeze all such "foolishness" out of his life. He had until recently managed to run his family in the same way.

But now his son was growing up and defying him; his wife, too, had grown tired of superlogic and was asking for a divorce. He had felt he could control any logical situation—but these people wouldn't act logically! Once he lost control of others, he lost control of himself as well. He could no longer suppress the anger that shook him when he saw a subordinate disregard his instructions—and thus personify his rebellious family.

### Emotional Blocks

Temper tantrums are an important sign of disturbance. Another such sign is emotional blocking: An employee wants to get his work out, tries to work, yet produces almost nothing.

This man has an inner conflict that prevents him from concentrat-

ing, no matter how hard he tries. Often, he can be helped by a skilled counselor in a brief period. For the superior to try to counsel him is dangerous, for his conflict may revolve around a highly personal matter—something he couldn't stand having his boss know about. Above all, he should not be scolded or given pep talks; the more he is pressed, the more he will block.

The man who is blocked is often a valuable employee. The most effective message his superior could deliver (if the situation permits) would probably sound something like this:

> You're not producing, but we think with professional help you could work out your problems. The medical department (or the personnel department) can suggest someone who will try to help you. We'll give you a chance—if you'll take it.

Similar to blocking is a sudden, though not total, drop in efficiency. This may pass quickly. If not, it may point to any one of a dozen illnesses. It could be caused by a more or less temporary depression, but it could also be the start of schizophrenia, a serious mental illness. In an older man, it might indicate a physical disorder—cerebral arteriosclerotic interference, which means that the brain is not getting a sufficient blood supply. A falling off in efficiency can also mark the start of an involutional melancholia, connected with oncoming age and "change of life," either in a woman or a man. With treatment, this melancholia can usually be corrected.

### *Absenteeism*

Still another symptom of possible emotional conflict is frequent absence because of illness. This often happens without notice. The employee telephones that he has an upset stomach, a cold, or some other illness. He's not faking—he honestly feels ill and says he wants to be cured. But he seldom gets any better.

This illness may well be psychogenic—caused by emotional conflict—but beware of making such an assumption without adequate evidence. Only a physician can decide, through tests and examinations, whether or not there is a physical cause for repeated illnesses. The employee should be urged to consult the plant physician or his own doctor — and his superior should make sure the doctor gets the whole picture, not just the employee's single complaint at the time of his first visit.

### *Paranoia*

A particularly dangerous kind of trouble is indicated by unjustified suspicions and even hallucinations —seeing and hearing things that aren't there. Such delusions may be harmless—but they may also be signs of a severe mental illness such as paranoia. In his fear over imaginary injuries, a paranoid person may inflict real injuries on himself and others.

If one of your subordinates starts to tell you of fears and suspicions

*"The limits of normal behavior are much more flexible than many people suppose. Beware of thinking a subordinate is 'strange' merely because his way of getting work done is different from yours . . ."*

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that are clearly imaginary, if he gives the details of events that could not have happened, hear him out—but don't try to reason with him. Get in touch with your medical department or personnel department, and make sure that the employee is examined by a psychiatrist as quickly as possible.

Not every paranoid person will talk freely about his ideas, however. Another situation to notice, therefore, is unusual silence, particularly if it is accompanied by any indication that the person has thoughts he fears to express. Don't jump to conclusions, though. There are plenty of rational reasons for silence. For example, a person may have a physical illness that is causing him trouble, but he won't mention it because he fears that it may affect his position.

### Different—or Disturbed?

A listing like this could go on indefinitely, noting all sorts of indications and definitions of mental illness. What is important to remember is that many mental and emotional disorders become evident on the job. Some of these disorders interfere with performance; others don't.

In the extreme instance when a subordinate's emotional disturbance appears to threaten violence to himself or others, you may wish to discuss the matter with someone in the personnel or medical department and determine what should be done. But the limits of normal behavior are much more flexible than many people suppose. Beware of thinking a subordinate is "strange" merely because his way of getting work done is different from yours.

You can't even screen out all eccentrics in hiring; there are too many of them, and some whose actions would appear fairly strange have made important contributions, both to their companies and to society.

It is true, however, that in most kinds of activity a congenial group works together most productively. Therefore, it's sensible, if there's a choice, to avoid hiring a person who would clearly antagonize the group.

But what about employees who

develop problems that do interfere with the way they do their jobs? Some approaches have already been mentioned; it may be worthwhile to explore them further.

In the first place, a competent manager can usually deal with minor disturbances. His best tool in doing this is not what he knows, but what he is. If a subordinate feels that you are genuinely interested, that you want to help him, and that you will not resent honesty, he will often tell you what's bothering him; you may be able to improve the situation, or correct his impression if he's mistaken. That closes the incident.

If the disturbance is more serious, some sort of change must be made—either in the employee or in the job. It sounds simpler to change the employee; actually, it's often easier to change the job.

### *How About a Transfer?*

A transfer to a job that has different requirements may be helpful. Meticulous, perfectionistic people are likely to do best on jobs with precise standards that help them determine whether or not they're doing the work exactly right; the same job might become a headache to a more casual person who enjoys big, challenging assignments that can be approached in a variety of ways.

Compatibility is important. How many people have you seen do poorly with one boss, well with another? If transfers for greater compatibility are contemplated, however, both the subordinate and the superior should have a voice in the decision.

Of course, not all problems can be solved by a transfer. There may be no suitable job available; neither the employee nor the supervisor may know what sort of job would be suitable; or the emotional disturbance may be of a kind that would persist in any job, unless the employee himself underwent some change.

So the employee needs to make some sort of change within himself to resolve the conflicts that keep him from functioning on the job.

### *How the Boss Can Help*

How can the superior help? He reads an article that says, "Listen." Another article says, "Offer understanding." This is good advice as far as it goes. Certainly you can do no less than listen to an employee who wants to talk about his troubles. And you should respond with sympathy and (if possible) understanding. But you shouldn't expect listening, sympathy, and understanding to cure a deep-seated emotional disturbance.

Remember that everyone, in trouble or out of it, is functioning as best he can. Only he himself can feel the full weight of his difficulties. A symptom that seems to an outsider disruptive, illogical, or "neurotic" may be his way of defending himself against slipping

into more serious illness. The suppression of one symptom may be followed by the appearance of another that is even more damaging.

The executive should listen to a problem employee's talk about his troubles. In fact, he should, if necessary, initiate such a talk by letting the employee know his performance is below par and asking if anything is bothering him. He should also offer any practical help or advice within his power, including the suggestion to consult a family counseling agency, a physician, or a clergyman if any of these seem appropriate.

### Professional Assistance

But if the problem continues without improvement, it's time to consider a referral to someone pro-

"Let's look at your problem this way—you're familiar with 'built-in obsolescence'?"

fessionally qualified to deal with emotional or mental illness. The first step should probably be to suggest consultation with the plant physician or the employee's own physician. If this person suggests that the employee see a psychologist or psychiatrist, this will be easier to take than a similar suggestion from his boss.

Even after the employee has seen a psychotherapist and has, perhaps, started treatment, he will still need the help and understanding of his superior.

He needs to know first of all that whatever treatment he is getting is kept confidential unless he himself wishes to talk about it. He should also know that once he has started a genuine attempt at improvement, there will be some leeway for temporary ups and downs. And, after he's made a recovery, he should be able to feel that his former difficulties won't be held against him.

### *Suppose He Fails?*

The fact that a person has entered treatment gives him a good chance of solving his problems—but it doesn't guarantee success. As with every other risk, it's important to realize that one can fail. In the first place, psychiatrists and psychologists don't know all the answers to problems of human behavior. And even if both therapist and patient understand the problem, this doesn't mean it will be solved. Just as with physical disease, an emotional illness may be too complex or too well entrenched to yield to treatment.

Ideally, no man who has shown his worth should be discarded because of a passing emotional disorder. Practically, we may find that the breakdown of a particular person is, for a time at least, irreparable. If that happens, we must let him go on the best terms that are possible.

### *Why Bother?*

"Our company is not a clinic," one company president said. "Why should we bother to rehabilitate problem employees?"

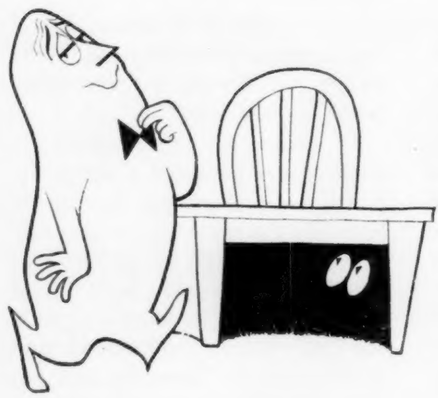
Of course a company is not a clinic. But a company is staffed by people — and people have problems. To the extent that a manager learns to deal with the problems of people he works with, he learns to handle his own problems as well. He also creates a pleasanter and more productive working environment—not a bad dividend, considering that he spends a good portion of his own life on the job.

It would be unfair, however, to base the whole concept only on enlightened self-interest. Among the needs that psychologists find in most healthy people is the need to be of service. What greater service can you render than to take a person who is a problem to himself and others, and give him the chance to become a productive, healthy human being? ♦

# The Helping Hand

## GUIDES FOR THE AMATEUR OFFICE PSYCHIATRIST

*Everyone has problems, and every organization is bound to have some people whose worries, tensions, or emotional disturbances are serious enough to affect their work. Here are some tested methods by which an executive can insure that he will have more than his share of "problem employees"—and that their problems won't be little ones . . .*

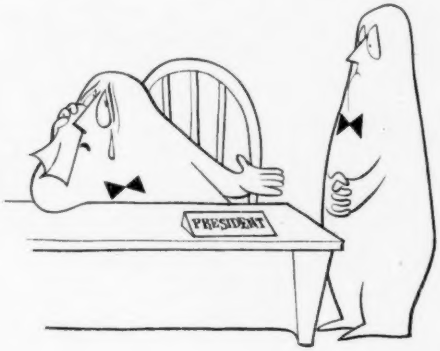


**Ignore the Problem.** Never mind how much his problem may disrupt the work of the department; if you ignore it, maybe it will go away.

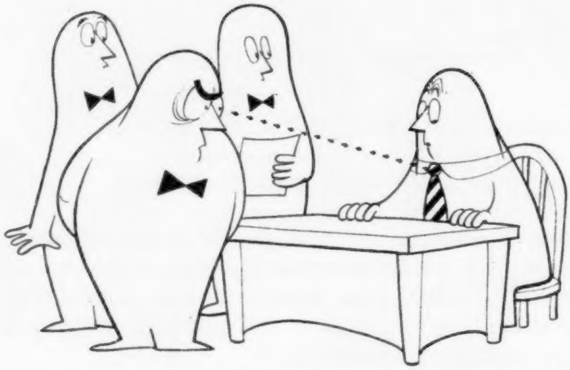
**Get Advice from His Fellow Workers.** You can never tell when you'll learn something worthwhile; at least, you'll certainly stir up interest in the office.

**Play Psychiatrist.** With all the TV shows and movies we've had about emotional disturbances, surely you must be qualified to delve into your subordinates' psyches. You're certain to find problems if you pick and probe long enough.

**Tell Him Your Own Problems.** He doesn't know what real trouble is until you've poured out your tale of woe, so pull out all the stops.

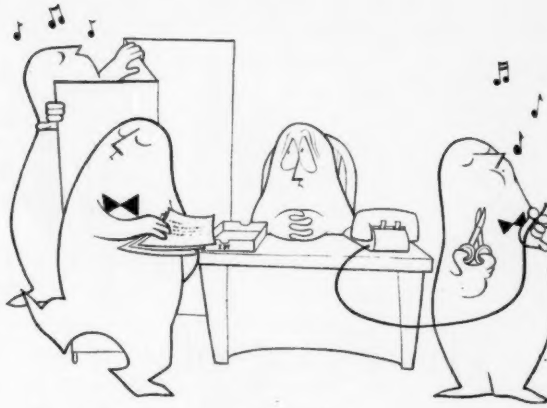



**Talk Turkey.** People with problems are weaklings! If a good pep talk and a hearty old slap on the back won't get him straightened out, nothing will.

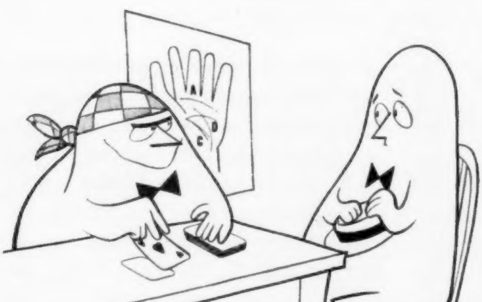


**Judge Him by Your Standards.** If he doesn't act and think exactly as you do, there's obviously something wrong with him.

**Call in His Family . . .** and have a good heart-to-heart with them. His wife will appreciate knowing that he has a Big Brother in the office.

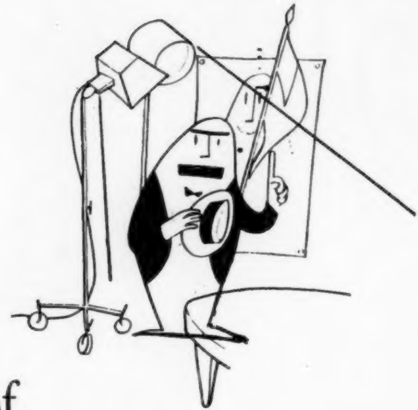


**Isolate Him.** At the first sign of trouble, quietly remove all his responsibilities until he gets a grip on himself—or has a nervous breakdown wondering what's going on.



**Experiment.** If you have any pet theories on the causes and cures of mental disturbances, here's your chance to try them out. Phrenology, anyone?

■ *Text by* R. F. GUDER
■ *Drawings by* AL HORMEL



# The Price of Corporate Vanity

By David Finn

*Condensed from Harvard Business Review*

IT IS TRUE that a good corporate impression can be an asset. But it is also true that corporations can go overboard trying to make other people like them—and that this can do considerable harm. The exaggerated prominence in our vocabulary of the word "image" suggests that we may be going too far in our concern for external appearances and that it is time to re-evaluate industry's basic approach to public relations.

When business is bad, image-making can be a dangerous remedy. It gives the false impression that a fundamental change is being made, for creating a new image of oneself is deceptively like creating a new self. When something goes wrong, a businessman may feel that he can cope with it if he keeps up the appearance of success. From this, it is a short step to believing that the appearance of success *is* success.

There are several classic situations in which this tendency shows itself. First and most common is the case of the inadequate company president who thinks himself

better than he really is. Inadequate leadership radiates from this kind of executive like spokes in a wheel.

If the hub is weak, the company's public relations will be weak and no amount of professional ingenuity can make it otherwise. But if, in addition, the president considers himself a dynamic manager and thinks the fault lies elsewhere, he is prone to believe that public relations can solve his problems. He suspects that the only thing wrong is the "spirit" of the company or its "look" to others, and that the arts of persuasion can change all this. The more strongly he believes this, the less likely he is to face the truth. If he is lucky (and his company unlucky), he can go on for years believing that in the long run and with the right kind of public relations, his fate will change.

### *Imaginary Team*

A contrasting case is that of the strong company president who wants to build public confidence in his second-and third-level management because too many people believe he is running a one-man company. Usually people believe this because it is true, but the president once again does not want to see the truth. He hires good executives to work under him to disprove these accusations, and asks his public-relations specialists to spotlight the depth of the management team.

The appointment of the executives often is itself a public-relations move, calculated more to influence opinion than to strengthen management. The president, of course, does not actually delegate authority, so the public-relations effort turns out to be unavailing. A continuous turnover of executives is proof that the president does not take the idea of management in depth seriously and that he is trying to use public relations as a cover-up for a weakness that he will never overcome. All this is harmful, not only because the public relations does not work, but also because everybody involved is clearly making a fool of himself in acting out the farce.

### *The Dying Product*

What is perhaps even more serious is the use of public relations to create fanfare for a product that is losing its market because of its basic deficiencies in design, quality, pricing, or marketing. Any public-relations man knows that his skill cannot be of value unless the product has natural appeal, can stand up to competition, and has an effective selling machinery behind it.

Many industries have had to face deterioration of, say, their dealer setup through uncontrollable price cutting, the inroads of other more profitable items, or lack of effective marketing. But too often management decides to sponsor a public-relations program to reintroduce

glamor into the product instead of correcting structural defects. Everybody works hard and perhaps some glamor does get created, but sales continue to slump. Those who realize what is happening get the feeling that the industry "is fiddling while Rome burns"—making lovely images while the market is falling apart instead of spending its energy first to put out the fire. If the situation is not calamitous, both can be done simultaneously. But to consider public relations alone as a cure for so basic an illness is self-deception.

### *The Failing Company*

Still another classic situation is the case of the company that has a bad financial record and counts on public relations to make it look good. But if the record is bad, can any amount of hullabaloo change it? To be sure, there are frequently special circumstances that may put failures in a better light, and it is perfectly legitimate to attempt to highlight these circumstances. Yet sometimes companies go much further than this. They convince themselves that because of their great dreams for the future, the record should be virtually ignored. The public-relations assignment then is to try to make the dreams look real. This, unfortunately, may succeed, and then management, the stockholders, and the business community all come to believe what is actually a fairy tale. When the truth comes out, the company may be too far gone to save.

Even when business is good, too much concern for a company's public image can sap the company's energy, weaken its leadership, and ultimately destroy its capacity for self-generating new ideas and new directions. Most executives who fall into this trap are unaware of what they are doing: They feel they are sensibly examining their profiles in a mirror and making adjustments that can further improve their business. But unfortunately it is too easy to step over the line and begin to run a company as one thinks others want it run instead of following one's own best judgments as a manager.

### *Self-Righteousness*

Occasionally, in the life of any corporation, something happens that leads the press to report unfavorably on something dear to the heart of management. This may be connected with labor problems, selling methods, a proxy fight, product failures, or the success of a competitive product. If it is bad enough, the public-relations specialist may get a spanking for letting such a "distortion of the facts" get into print. The battalions then are brought out (advertising pressure, meetings with publishers, counterattacks against "the other side") to turn back the tide.

Management often deceives itself with the notion that it alone has "all

the facts" and that if reporters would only learn to "get their facts straight," the problem of an unfavorable press would be solved. The sad truth is that sometimes management is wrong and deserves to be brought to account by a responsible press. There is no reason why this should be done with kid gloves. The press has a right (some think an obligation) to speak up if it has the damning facts.

A sturdy, self-confident management responds to criticism with action, not with public relations, when it is under attack.

This does not mean that the public-relations specialist is not consulted, but it does mean that his job is to help management learn and respond to criticism rather than fight like a bully or hide behind a smoke screen.

Artificiality, disguise, subterfuge, pressuring, manipulation—all these can play a part in public relations as it is employed by businessmen whose power and success have gone to their heads. How can these tendencies be checked? Not by moralizing, for this leads people to think that "our" kind of public relations is always right, and that the transgressions are only committed by "the rascals," whoever they may be. And not by self-restraint, for this is not in the nature of men with strong promotional instincts.

What is vitally needed is a strengthening of all those institutions that have a potential for criticizing business or even for fighting actively against destructive business interests. Businessmen must accept the fact that free, vigorous, constructive criticism helps improve the course of human enterprise. They must recognize that the job of public relations should be to further the process, not impede it. Only in this way can the professional practice of public relations avoid becoming a corrupting influence in our society and instead become a force for continuous social betterment by performing the useful task of giving public expression to dynamic leadership. ♦

## *Scrambled Eggs and Business*

MORE AND MORE businessmen are arranging to breakfast with clients and associates, in place of the more usual luncheon date, reports *Business Management*. Reasons vary, but here are a few things that you can gain from a breakfast date:

- Plans decided over the breakfast table can be put into action the same day, instead of being postponed until the next business day.
- Breakfast dates are easier to arrange because you are less likely to run into conflicting engagements.
- Minds—some of them—are likely to be keener in the morning.

# Tomorrow's Demand for Marketing Talent

**By John A. Spencer**

*Condensed from Sales Management*

As MARKETING becomes more demanding and moves into new and different areas, a company's manpower planning must keep pace. Industry must be sure that its current and future marketing managers will have the necessary skills for doing the complex marketing job that lies ahead.

An examination of the changing requirements in several phases of marketing can help you plan now for tomorrow's needs.

### Marketing Research

In studying the market and sales outlook for their products and services, marketing researchers must increasingly appraise not only direct competitors producing similar products, but also functional competitors with alternative ways of meeting the customer's needs. For example, a manufacturer of glass containers must now be concerned with containers made of steel, aluminum, plastics, and other materials. Increasingly, market researchers will be analyzing economic and technological trends in competing industries.

Because many companies have only one qualified market researcher on the staff, they often have to engage outside market-research firms for major research projects. For this reason, the company marketing researcher must be trained in the effective use of such firms: when to use them; how to assess their resources, experience, and capabilities; and how to work with them.

### Product Planning

The successful product planner will have to meet four basic requirements. First, he must know how a business operates, and must understand those influences that cause it to change. He must have a thorough knowledge of marketing — particularly marketing research, sales, and

distribution. He should know something about cost accounting, manufacturing processes, and operations research techniques. He should understand economics and sociology, so that he will be able to sense customer needs from social and economic environmental pressures.

The product planner should also be able to analyze information and to derive creative and meaningful courses of action. He should know how to evaluate and stimulate the contributions of planning-team members from engineering and manufacturing.

The third requirement for the product planner is the skill to integrate the work of others in advancing toward a particular goal. An extremely important aspect of this skill is the ability to lead others in the risk-taking so essential to product leadership.

Finally, the successful product planner requires experience. The route to know-how in product planning lies in doing the job over a reasonable time span. To an increasing degree, the size of the product-planning assignment, requiring wide business and marketing savvy, will require seasoning in the trade.

#### *Impact on Promotion*

The marketing changes of the coming decade will have great impact on advertising and sales-promotion work. Tomorrow's public will seek more specialization of product. Instead of having the present three classes of cars (low-, medium-, and high-priced) serving the nation's needs, we may have 25 classes. Instead of slicing the major-appliance market into four segments (free-standing and built-in, original sale and renewal), we may have to divide it fifteen ways (appliances for apartment houses, for young people, for old people, for second homes, etc.)

This proliferation of markets and products may well produce a communications explosion, as differentiated audiences receive differentiated messages through differentiated media. The challenge to advertising and sales promotion in the future is to find ways to communicate effectively with customers and prospects—without weakening advertising until it's worthless, and without annoying potential buyers to the point of antipathy.

#### *Marketing Administration*

Administration has become one of the most exacting and challenging areas of marketing work. With data-recording and storage equipment, computers, and data transmission, for example, information can be recorded, stored, retrieved, and presented to management more quickly and with greater efficiency than ever before. The possibilities for better customer service, decreased lock-up in inventories, and smoother production flow are enormous.

The technological requirements of marketing work foretell the develop-

ment of a new field: "marketing engineering." The marketing manager of the future must understand and utilize, to a far greater degree than in the past, statistics, mathematics, and operations research and synthesis, since decisions invariably require a balancing of alternative possibilities.

### *Formidable Challenge*

In the selling field, the challenge of the future is most formidable. These are some phases of the selling job that lies ahead:

- Consumers are becoming more sophisticated in their buying; they are becoming less susceptive to high pressure and palaver and sharper in determining true value.
- A substantial increase in discretionary income will permit customers to range over a broader field. Their happy choice: buying things vs. buying experiences.
- Trends toward mass merchandising—packaging innovations, retail self-service, etc.—will expand further in the consumer-goods markets. This may result in reduced selling efforts at the retail level for many products. But at the same time, a much more skillful and ingenious approach will be required for selling to the channels of distribution.
- In industrial goods, the trend toward more complex equipment will continue. Buying decisions will tend to be of a longer-term nature, less reversible, and more of a business risk because of the unprecedented—and unpredictable—pace of technological development. Selling capital equipment will require salesmen with greater technical knowledge. And the industrial salesman will have to understand not only his products and systems, but also what influences the buying decision of his customer—including such factors as supply of capital, investment return, tax considerations, and others far from the hardware itself.
- Increasing in importance will be various types of long-term financing and leasing arrangements for products for home and factory. As these products become more complicated and require greater maintenance, the leasing and selling of service become increasingly important. With the cost of product service increasing in comparison with the cost of the product, we may be fast approaching the possibility that a customer will decide he can't afford certain products because the service cost, not the initial purchase price, is beyond his means.

Probably the most important requirements of all for marketing management are creativity and innovation. The marketing manager must either have them or be able to find them in his associates. Of all the functions of a business, none is so certain of ever-accelerating change as marketing. The successful marketing manager must be curious, imaginative, and ever in search of innovation. ♦

# Machines That Read

**By Melvin Mandell**
*Condensed from Dun's Review and Modern Industry*

ONE OFFICE MACHINE has quietly been creating excitement in many company headquarters across the nation. It's the reading machine, which promises effects as spectacular as the fanciest tape-controlled production tool. Lightning-fast, tireless, and almost incapable of error, the reading machine reads and records printed material at the astounding speed of 340 characters a second, far faster than the human eye.

Eventual customers for the machines may include almost every business grossing over one million dollars a year. This vast market potential has spurred a host of manufacturers to move into the field, and already there are signs that a great marketing race is underway.

Front-runner to date is Farrington Electronics Corp., the only company so far to have actually installed reading machines. The tiny Rabinow Engineering Co. is hot on its heels. Not far behind is International Business Machines Corp., whose optical scanner goes into production this fall. Breathing down IBM's neck are Radio Corporation of America, General Electric Co., and National Cash Register Co., each with plans to market a ma-

chine of its own within two years or so. And at least a dozen other manufacturers are now working on prototype reading machines of one kind or another.

### *Opening the Bottleneck*

The reading machine, it's hoped, will open a bottleneck that so far has kept the giant computer from realizing its full market potential. That bottleneck is input. Computers "think" only in a special, coded language of their own, so there is no way of feeding masses of ordinary typed or printed data directly into them. "Pumping data into them takes specially trained people, precious time, and all kinds of accessory equipment," notes Joseph McQueen, vice-president of Alan Wood Steel Co. By eliminating this translation lag, the reading machines can open up new possibilities for the computer.

Teaming up with computers is only one of many ways the new machines will serve industry. And it may not even be the most important. "Computer input is actually the smaller end of this business," maintains Farrington's President William M. Tetrick. "There's a bigger market in quality control, telegraphy, mail sorting, and making up payrolls."

Already, several public utilities are using Farrington machines to read and record customers' returned bill stubs. Oil companies have bought them to key-punch charge-account numbers into credit-sales slips. The state of Pennsylvania will soon put reading machines to work on drivers' licenses and auto-registration renewal forms. And at least one insurance company—Aetna Life—has a machine on order that can read only the filled-in spaces on insurance-application forms.

### *Improving the Product*

Reading-machine manufacturers have been pouring money into improving their products, with good reason. Existing machines, despite their fantastic reading speeds, have serious shortcomings. They can read only specially designed type faces, and manufacturers have not yet been able to agree on a single standard for the industry.

Eventually, however, the industry may produce more versatile reading machines that can handle several fonts and possibly even read handwriting. Theoretically, multiple-font readers are possible right now. The stumbling block is cost. One manufacturer can build a machine that reads ten fonts interchangeably, but at $400,000 he has not found any takers.

Another problem that industry scientists are trying to solve is the machines' insistence on letter-perfect copy. Unlike the human eye, a reading machine cannot slow down in order to make out smudgy, sloppy, overlapping, or crooked typing or printing. When a reading machine encounters a single character

it cannot recognize, the entire document is popped automatically into a "reject" bin, to be processed manually later on.

When machines are developed that can read handwriting, they will outsell the models that read typed material by two to one, IBM's experts predict. The reason, of course, is that such machines would eliminate the need for imprinters, special fonts, and all the other input hardware that current machines require, bringing business back full circle to the use of the humble pencil. IBM has already demonstrated an experimental machine that reads "controlled" handwriting, but the device is admittedly years away from production.

Wary of the drawbacks and the crossfire of claims and counterclaims for reading machines, many businessmen will undoubtedly wait for the dust to settle before they order. Others, eying the rising tide of paperwork—and manufacturers' years-long waiting lists—will decide they cannot afford the luxury of delay. In either case, the promise of the new machines cannot be ignored. ♦

## Marks of Prestige

EXECUTIVE STATUS SYMBOLS are as much in vogue as ever, but New York office designers disagree on their relative importance. Among the marks of prestige mentioned—and debated—by several designers, reports *The New York Times,* are these:

- *Windows.* While windows in an office are still an important sign of status, says one designer, they're less coveted in the new glass-and-aluminum office buildings. Another designer disagrees, noting that they are important enough that "one executive gave up an office with windows because there weren't enough such offices to go around among the junior executives. He took an inside office to prevent squabbling."
- *Office furniture.* Office furniture is a prime factor in establishing status, asserts one decorator. Chairs and desks come in several classes for different levels of executives, he notes, although the pieces often have the same basic design. "You might have the same type of carpet for senior and junior executives," he points out, "but the chief executive's carpet would have rubber backing."
- *Executive washrooms.* Among the appointments to be found in today's executive washroom, observes one decorator, are massage tables, barber chairs, showers, bookshelves, carpets, telephones, and exercise machines. One company installed a washroom for each of its ten top vice-presidents. But, notes the designer involved, "it's not a matter of individual prestige. It's more a matter of corporate image."

# Europe's Growing Stake in U. S. Business

**By Alfred L. Malabre**

*Condensed from The Wall Street Journal*

IN HIGH-CEILINGED offices overlooking the Thames River, executives of giant Unilever, Ltd., are following with interest the fortunes of Good Humor men vending ice cream on the streets of U.S. cities. Their concern is easily explained: Through a subsidiary, Unilever recently bought Good Humor Corp. for about eight million dollars.

The Anglo-Dutch company's acquisition of such a thoroughly American institution as Good Humor underscores the steady growth of European firms' stake in U.S. business. It's estimated that Western European concerns now have a total investment of some 3.5 billion dollars in U.S. plants and other facilities—up from just over three billion dollars at the start of 1959.

European companies are currently establishing a number of new American beachheads. Montecatini, the Italian chemical concern, will soon start producing polypropylene (a versatile new synthetic whose uses range from plastic parts for vacuum cleaners to Scotchplaid blankets) at its new ten-million-dollar factory at Neal, W. Va. At Catawba, S. C., Britain's Bowater organization is putting up a 36.4-million-dollar paper mill. West Germany's Farbwerke Hoechst, A. G., a Frankfurt chemical producer, has purchased Lloyd Brothers, Inc., a ninety-year-old Cincinnati drug maker with annual sales near ten million dollars; the Ohio firm becomes the German concern's eighth U.S. subsidiary.

European investment in U.S. industry, to be sure, is not a recent development. Good Humor ice cream is only one of many widely known products turned out by U.S. affiliates of European companies. Others include Lux soap (Unilever), Twenty Mule Team cleaning powders (Borax, Ltd., of London), Underwood typewriters (Olivetti & Co. of Ivrea, Italy) and Kool, Viceroy, and Raleigh cigar-

ettes (British-American Tobacco Co., Ltd., of London).

But there's little doubt that European firms are accelerating their investment in U.S. plants and affiliates. Authorities calculate that new investment of this type is now flowing into the U.S. from Europe at a rate of over 200 million dollars a year, compared with about 70 million dollars annually a decade ago.

One reason for the increased rate is the tendency of some European governments to look with more favor on investments abroad as their foreign-exchange reserves mount. "We used to have a difficult time winning government approval for a foreign project, but now a proposal is usually welcomed," says a Parisian businessman. France's foreign-exchange holdings have climbed well above two billion dollars from only 645 million dollars at the start of 1958. In Italy, where reserves have also climbed sharply, the government recently relaxed controls to allow banks to transfer private capital abroad for direct investment.

### *Nationalization Threats*

Also contributing to the rise in European investment in the U.S. are political instability and nationalization threats in some areas where European firms have traditionally operated. For instance, uncertainty about the future course of Britain's African protectorate of Nyasaland, where nationalist sentiments are strong, has led European firms to cancel more than one million dollars' worth of projects there in recent months, a British bank reports.

### *Narrowing Cost Gap*

High costs, particularly for labor, still deter some European concerns from setting up shop here. But the cost gap is narrowing, and this development makes the U.S. more attractive than before to Europeans. One survey indicates that average hourly wages in U.S. manufacturing plants have climbed 30 per cent since 1953, while increases have ranged from 50 per cent to over 70 per cent during the same period in France, West Germany, Sweden, and the Netherlands. The wage differential that remains is partially offset by the elimination of import duties and ocean-shipping bills for European firms with production facilities in the U.S.

Increasing investment by European companies could help reduce the U.S.'s balance-of-payment deficit, which totaled some 300 million dollars in the first quarter of this year. Some economists, however, doubt that this balance-of-payments problem will be eased significantly by new European operations in the U.S. They note that foreign firms frequently depend heavily on funds raised in the U.S. to build plants there; they also point out that foreign companies may take funds from the U.S. in the form of dividends from subsidiaries. ♦

# Personality Tests—and how to beat them

■ Darrell Huff

OF THE THINGS WE WANT, a frighteningly large and expanding number depend on the showing we make in some kind of formal test.

The reason for all these tests lies in the growing complexity of things. Someone had to supply a basis for the many decisions about, for example, who is best suited to do a job or handle a promotion. The psychologists stepped in and took this responsibility, and their tool for fitting square pegs into square holes is tests.

In addition to various forms of objective tests designed to determine the subject's knowledge and ability, personality tests have become increasingly important. These are the probing inventories that delve into your character and interests—often at the expense of your privacy. Even the best of them can give results of only limited value

A MANAGEMENT REVIEW SPECIAL FEATURE

and dependability, but this is something that those who interpret them unfortunately do not always remember.

When taking tests of knowledge or aptitude, all you have to do is choose the right answers. That may be difficult enough. But on a personality test there are, technically speaking, no right or wrong answers. When you take a test of this kind the instructions will very likely tell you just that. Yet for you—as a job applicant, say—it may not be so at all. Give answers that are different from those wanted for the position you're after and you'll promptly discover how costly such responses can be.

### *Why Take the Test?*

Here is a principle to keep firmly in mind: The way to behave when confronted by a personality test must depend on what you wish to accomplish by taking it.

You may be taking a personality test for diagnostic reasons of some sort. It may be part of a vocational-guidance program, or it may have medical ends. If such a test is worth taking at all, it is worth taking earnestly, and you will want to answer the questions as frankly and as accurately as you can.

But what of the common situation in which someone else wants to learn something about you for his own purposes? These purposes may coincide with your own, but equally likely they may not. Are you obligated to cooperate to your own possible disadvantage?

This is the condition in which you will take a personality test, or a battery of such tests, when applying for a job or when being considered for a promotion. Probably the question of how honestly you should cooperate in answering personality questions is academic anyway, since people taking such tests normally try to make themselves look as desirable as they can. In fact, all such tests are made up and scored on the assumption that you will behave with a lively sense of self-interest. Where they are vulnerable is in the further assumption that your self-interest has been allowed for in advance—that you will not succeed in putting forward that best foot.

### *Victims of Personality Tests*

The two things principally wrong with personality tests or inventories are that they are applied blindly and that they aren't much good in the first place.

The company that misapplies a test is likely to suffer. It will hire less suitable people than it otherwise would, and it will pass up potential employees who would have

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Mr. Huff is the author of two widely read books, *How to Lie with Statistics* and *How to Take a Chance.* This article is based on a chapter from his forthcoming book, *Score: The Strategy of Taking Tests,* which will be published later this month by Appleton-Century-Crofts, an affiliate of Meredith Press ($3.75).

*"Many of the ablest executives would have difficulty starting today if subjected to the usual personality tests. They would, that is, if they answered all the questions frankly and naively . . ."*

• • •

been valuable. However, that is a risk a company assumes when it chooses to use a test in this way. The individual who suffers by failing to get a job in which he might have done well is also a victim of the test—or, more properly, this use of the test—and an innocent one at that.

At a time when intelligence tests were new enough to be as modish as personality ones are now, a large company used them as its principal criterion in hiring salesmen. It shortly found itself going broke on the efforts of the brightest sales staff in the world, a group of men who unfortunately were not very good salesmen.

According to testimony before a Congressional committee on atomic energy, the famous "Boss" Kettering of General Motors once gave the Massachusetts Institute of Technology examination for entering freshmen to fifty-seven of his most highly paid engineers. And fifty-three of them flunked.

Personality tests are used in situations where it is even more difficult to discover whether they have any validity. A company hiring what it hopes will prove to be executive talent commonly asks for test results showing a degree of conformity and even mediocrity.

#### *The Best Policy?*

Yet many executives have survived such handicaps. Many of the ablest would have difficulty starting today if subjected to the usual personality tests. They would, that is, if they answered all the questions frankly and naively.

William H. Whyte, Jr., long a *Fortune* editor, has advice for anyone faced by this problem. He gives it in some detail in his book, *The Organization Man*. Summed up, it is: Cheat!

Is it feasible to cheat on a personality test? Many testmakers prefer to think not. They cite the measures of consistency, the "lie scores" built into tests to prevent this. But Henry S. Dyer, research vice-president of Educational Testing Service, says of the personality inventory, ". . . it is highly fakable." This applies equally to inventories of interests.

After persuasively arguing the moral obligation and probable economic necessity of cheating on this kind of test when it is given under duress, Whyte offers some suggestions on how to go about it. As a general rule, he says, give the most conventional answers possible. He also would have you hold this creed in mind while selecting your responses:

(A) I loved my father and my mother, but my father a little bit more.

(B) I like things pretty well the way they are.

(C) I never worry much about anything.

(D) I don't care for books or music much.

(E) I love my wife and children.

(F) I don't let them get in the way of company work.

There is another way of approaching the critical hour when a personality inventory may cut you off from the future you want for yourself. It helps to avoid the dangers of too-favorable answers, inconsistency, and that lurking L (for lie) score. You may also find it less of a strain than trying to superimpose a set of maxims onto your own personality.

### *Typical Test Items*

Before getting into this method, though, it might be instructive to look at the kinds of items that make up typical tests of personality. On such widely used tests as the Minnesota Multiphasic Personality Inventory and the California Psychological Inventory, you will be asked to agree or disagree with about five hundred statements. The samples that follow are close enough to actual items to give you the idea.

Some seem innocent enough:

"I enjoy reading newspaper editorials."

"I don't like having to rush when working."

Other items have a little bite, but hardly enough to be alarming:

"I don't always tell the truth."

"My table manners are sometimes better when I'm eating with outsiders than when I am at home."

"I have many daydreams."

"I don't think parents are strict enough with their children these days."

Some of the items are pretty probing—and even alarming:

"If I could get into a movie without paying and was sure of not being seen, I'd do it."

"I have been in trouble because of of my sexual behavior."

"I am often aware of peculiar odors that other people don't notice."

"Most people can't be trusted."

From your responses to statements like these, you will be rated as to sociability, self-control, flexibility, and a number of other even less easily identified characteristics. Or, depending upon which of the many psychological inventories you have been subjected to, you may be "placed" on scales of such cosy

characteristics as hypochondria, hysteria, or psychopathic deviation.

### *To Tell the Truth*

One of the things the makers of these inventories know about you even before you take their tests is that you may not tell the truth. You may, especially if something like a job is at stake, choose the answers you think will put you in the best light. It is to guard against results falsified by this human tendency that test-makers have come up with the idea of a "lie score."

Look critically at the samples of personality items given above. If you are earnestly, and a little naively, trying to make yourself look very good you might carry the effort too far.

You might, for instance, deny that you are capable of such underhanded behavior as sneaking into a movie.

You might go further and try to show yourself as being so honest and unpretentious that your table manners are as good at home as out in public.

One or two or several such answers might be the truth. But the test people simply don't believe that many of us are so honest and so virtuous that we never lie or show off. People who answer very

## REVEALING THE INNER YOU

ASSUME YOU HAVE JUST TAKEN A PERSONALITY TEST. You have answered a myriad of questions, and now the results are in. Here is a summary of the report on you. Read it, and see whether you feel it does a good job of revealing the inner you.

1. You prefer a certain amount of change and variety, and are dissatisfied when hemmed in by restraints.
2. Proud of your independent thinking, you don't accept others' statements without satisfactory proof.
3. You tend to be self-critical.
4. At times you're very sociable, while at other times you're wary and withdrawn.
5. Security is one of your major goals.
6. You have great need for others to like and admire you.
7. Disciplined and self-controlled on the outside, you tend to be worrisome and insecure inside.

many such questions in their own favor are going to be credited with a "lie score" high enough to cast doubt on the honesty with which they have taken the personality test as a whole.

The moral is this: Don't underestimate the ability of a personality test to detect a faker.

### *How to Cheat*

Nevertheless, these tests can be fooled. But haphazard approach won't work.

An effective method of defeating a personality test is simply to adopt a ready-made personality complete. You can use that of a friend who fits the pattern you believe is wanted. You might use your banker, for instance, if you know him well enough. A businessman whose biography you've read recently might do very well, but be sure he is of typical executive cut; many famous business successes, for reasons we have just examined, probably could not get themselves hired today once their personalities had been scientifically inventoried.

But it makes little difference how you choose your personality, as long as it is suitable and is one with which you are familiar enough. A fictional character may do best, since the people other than ourselves

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8. You have much unused capacity which you haven't turned to your advantage.

9. While having some personality weaknesses, you generally make up for them in other ways.

10. You've found it unwise to be too frank in revealing yourself to others.

Pretty fair picture of you? It was designed to be—of you and of almost anybody else. It is a careful compilation of generalities that seem to mean something and don't mean much.

It was worked out by Wayne State University psychologist Ross Stagner to show how the poorest sort of personality test, even a completely fraudulent one, can give convincing results. Dr. Stagner once administered a phony test to a group of 62 executives and handed each the analysis you have just read—without bothering to score the test at all. Nearly all rated the results as anywhere from pretty good to uncannily accurate.

whom we know most intimately often are those revealed to us by novelists.

I used a character from fiction in an experiment not long ago. A description of this will outline the method for you and show the results that may be expected.

### *The Alter Ego*

While taking an elaborate test of the personality-inventory type, along with three members of my family, I arranged to have an additional person included. He was identified only by a fictitious name. Each of us took the test conscientiously. Then I filled out the final inventory form, taking on for the occasion a personality different from my own. I wanted a personality that I felt would be useful if I were taking the test to get a job in the business world, and I settled upon a fictional one I felt I knew well enough. This was the hero of the J. P. Marquand novel, *Sincerely, Willis Wayde.* I'd read it not long before, and I had recently seen the movie.

Although this was a long test, taking it as Willis Wayde proved no great chore. It was far easier than trying to falsify answers consistently without a model. On the whole, it was simpler even than taking the test as myself; my considerable, yet essentially limited, knowledge of Marquand's businessman permitted me to answer many of the questions without the internal arguments I'd


"No junk mail?"

indulged in while I was being myself.

The test I was taking is one that concerns itself with four factors. The person tested is placed on one side or the other, or within a sort of neutral mid-range, on each of the four characteristics.

### *Test Results*

Of the five of us taking it, only two were on opposite sides of the scale on all four characteristics. These were "Wayde" and I. That is, the test found my assumed personality to differ from my own more than mine differed from those of my wife and my college-age daughters. It found the real me differing in every respect from "Wayde" and, not unnaturally, from what personnel departments generally admire and seek in giving tests to prospective employees.

The report on "Wayde" described him as extroverted, more concerned with the outer world of people and things than with his own thoughts, feelings, and responses.

The test found him more inclined to trust his eyes and ears—the perceptions of his senses—than his intuition. This sounds a little like a psychologist's description of the trait a businessman might speak of, and admire, as hardheadedness.

In the third category, "Wayde" was found to emphasize feeling over thinking, to be more interested in people than logic, to prefer tact to truth, to agree more readily than disagree with others.

Unlike any of the rest of us who took the test, "Wayde"—the test indicated—would put judgment ahead of perception. That is, he would feel that life should be willed and decided rather than experienced and understood. (No existentialist, he.) "Wayde" would come to a conclusion where the so-called perceptive type would wait to see—and perhaps never reach one. As a judging sort of person, he would have the gift of promptly handling the many practical problems that need to be disposed of daily.

### *Most Likely to Succeed*

The report on "Wayde" then summed him up. He is friendly, tactful, sympathetic, able to express the feelings appropriate to the moment. He is sensitive to praise and criticism and eager to conform. He is persevering, conscientious, orderly in small matters and inclined to insist that others be the same. He will adapt well to a routine. He is idealistic and loyal. He belongs to a category of persons whose mental processes operate best through contact with others.

This picture of my assumed character will give you a fair model of the young man most likely to succeed, at least in taking personality tests. It is also, I think, a convincing demonstration of the simplest and most effective way to beat a personality test or an inventory of interests when one is imposed upon you. ♦

# MONEY, CREDIT, and the ECONOMY

### *HIGH SPOTS OF THE REPORT OF THE COMMISSION ON MONEY AND CREDIT*

**By Henry C. Wallich**

*Condensed from Saturday Review*

"WHAT'S so complicated about money and credit?" a lady asked. "Money is what you can get if you have credit; credit is what you can get if you have enough money so you don't need it."

This common view serves well enough for everyday purposes. But once one moves beyond the household budget and tries to see money and credit as they function in the national and global economy, one finds himself faced with a financial machine so sensitive that any change in its delicate balance will invariably affect national growth.

Considering its far-reaching effects, our monetary machinery is remarkably little understood. To increase our understanding of it, the Commission on Money and Credit (established by the Committee for Economic Development) spent almost three years preparing a major report on the present and future state of the national economy. The report has now been released. Here are some of the high spots of it:

#### *National Economic Goals*

Money and credit are means toward attaining our economic goals. With their discussion of these goals, the Commissioners explore hot areas of current controversy. They want growth, low unemployment, and reasonable price stability, and they ask whether there is affinity or conflict between any of these.

Low unemployment, of course, gets along famously with growth. Stable prices also are compatible with growth, the Commissioners say, rejecting the doctrine that inflation must accompany growth. It is between low unemployment and reasonable price stability that the potential trouble lies. Low unemployment places labor in a strong bar-

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gaining position and makes employers willing to bid up wages. This spells rising wages and rising prices. The Commission prescribes several remedies to facilitate peaceful co-existence of low unemployment and stable prices.

*Low unemployment:* To achieve low unemployment, the Commission assumes monetary, fiscal, and debt-management policies designed to generate an adequate level of demand. It stresses that unemployment below 4 per cent (the level usually cited as adequate) probably cannot be safely promoted by stepping up demand. To attain a lower figure, greater labor mobility is needed through an improved unemployment service, retraining, and removal of such practices as feather-bedding and discrimination.

### Fighting Inflation

*Reasonable price stability:* The report firmly endorses the use of monetary, fiscal, and debt-management policy to fight inflation. It thus parts company with those who say that these measures, designed to curb excessive demand, are useless in an inflation caused by upward pressure of wages and arbitrary administration of prices.

But the commission does accept the reality of the "new inflation," as most analysts now do. Hence, while it proposes to use the traditional tools in fighting inflation, it does not propose to fight it to a standstill with them. And how the remainder of the fight is to be won, the Commission is no more able to tell us than anybody else. It steers clear of price control and its junior versions, such as public hearings on impending price increases. It proposes antitrust action, more labor mobility, exposure to foreign competition, and better farm and public-procurement policies. It calls for self-restraint by business and labor. But it does not say that wage increases should remain limited to average productivity gains, or that prices should be cut by firms whose profit margins widen. Nor does it say how stability is to be maintained if this doesn't happen.

*Growth:* The Commission as a group abstains from naming a particular growth target. Instead, it limits itself to projecting a rate averaging 3.5 to 4.5 per cent per year for the decade ahead. With the added measures it endorses, of the sort just mentioned, it thinks the rate might go a little higher.

### Monetary Policy

The Committee comes to the defense of the much-criticized practice of monetary policy, and makes positive recommendations for streamlining and updating the Federal Reserve. Via the Commission's proposals, ownership of the system by the member banks is virtually ended through repayment of most of the capital (the remaining surplus is quite adequate to keep the Federal Reserve going). The Fed-

eral Reserve Bank presidents are taken off the Open Market Committee. Discount-rate powers are more firmly vested in the Board of Governors in Washington, with recommendation for regional uniformity of discount rate and practices; the board is reduced from seven to five, the chairman strengthened within the board. The chairman's term of office is so arranged that each incoming president can appoint his man. These changes move the emphasis within the Federal Reserve System away from the private sector and toward the public, away from the regional banks and toward Washington. Most of the proposed changes are not too controversial, with one exception: the appointment of a new chairman by the incoming president. It is a reasonable proposal, but its consequences could be far-reaching.

### *Fiscal Policy*

Here the Commission makes perhaps the single most important proposal of the report: "In order to provide maximum flexibility for stabilizing tax changes, the Commission recommends that Congress grant the President limited conditional power to make temporary counter-cyclical adjustments in the first-bracket rate of the personal income tax. . . ." The Commission hedges its proposal with numerous safeguards, including a Congressional veto over this particular presidential power. It is wise in doing so, because it believes Congress may reject such a delegation of its constitutional taxing power. To be sure, such executive powers could easily become a source of political mischief. Properly used, however, they could prove the longest step toward economic stability since the establishment of the Federal Reserve System.

### *Debt Management*

The Commission makes clear that minimum cost should not be the primary goal of public-debt management. The maturities of the debt should be lengthened to avoid excessive short-term debt; this should be undertaken when business is buoyant, to avoid depressing the bond market when business is slack. Once the debt has been spread out, further refunding should be handled counter-cyclically, by selling short-term securities in recessions to create liquidity, by selling long-terms in booms to reduce it. All this may be expensive.

The Commission suggests removal of the public debt limit, apparently feeling that an open deficit is the best defense against fiscal hypocrisy. It also proposes removal of the much debated 4¼-per-cent interest ceiling, which would forestall the possible need for inflationary short-term financing.

### *Policy Coordination*

Who is to ride herd on the various policy-making agencies? Ac-

cording to the Commission's recommendations, the Federal Reserve Act is to be coordinated with a revised Employment Act, giving the Federal Reserve and the President's Council of Economic Advisers identical marching orders. The Federal Reserve is to be drawn into a new Presidential council. This body is not statutory, however, and cannot bind the Federal Reserve. The real joker is the provision, in an earlier section, that in effect allows the incoming president to appoint the chairman of the Federal Reserve's Board of Governors. This can lead to everything or nothing: a board completely subservient to the president, a split board, or an independent board.

For general policy coordination throughout the executive branch, the Commission looks to the President. He is to meet with his new council of major agencies often enough to give leadership and insure coordination. When things are not going well in the economy, he is to render a quarterly report to Congress. Numerous further suggestions to improve policy-making are added. ♦

## *Industry's Demands for Energy*

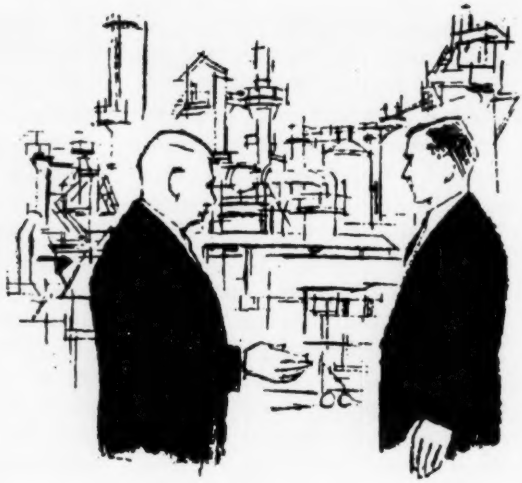
THERE WILL BE a sizable increase in industry's demand for energy over the next two decades, reports *Chemical Engineering*. Average annual growth rate of all end-use energy consumed by industry is expected to accelerate to 3.8 per cent per year from 1960 to 1980, compared with 2.9 per cent per year between 1949 and 1959.

Industry accounted for 42 per cent of end-use energy consumed in 1959. By 1980, industry's requirements will probably reach half of total end-use energy needs.

Natural gas will remain the largest single source of industrial energy, but petroleum use is expected to decline after 1970 as a result of increasing competitive pressure from coal.

By far the largest portion of the energy used by industry is devoted to providing heat and steam for processing or manufacturing goods and materials. However, growth of industry's energy requirements (about 3 per cent annually) has lagged behind the 3½ per-cent-per-year rate of advance in the output of various manufactured goods.

This disparity can be traced to technological advancements: Great economies have been achieved in the use of energy, and a sizable reduction in industrial energy requirements per unit of output has occurred. If industrial efficiency hadn't dampened the growth of such requirements, then in 1959—using past ratios—there would have been consumed 15 per cent more industrial energy than was actually used. In the future, however, as additional gains in industrial energy efficiency become more difficult to achieve, energy demand will be linked more directly to industrial output.



# BUILDING COSTS:

## How to Save Money Before You Start

**By Cushing C. Bozenhard**

*Condensed from Business Management*

YOU CAN WASTE thousands of dollars on a new building before the first shovel breaks ground. Just as easily, you can save thousands. It all depends on how much you know about getting a building constructed.

No manager would buy expensive equipment without careful study. But cases show that many charge willingly and blindly into expensive building projects without any real knowledge of what to do. Here are several actions you can take to help minimize costs of a new building.

### Time for Savings

• *Allow time for planning.* An architect needs time to figure out the most efficient and most economical design for a building. If he is rushed, he may have to use his first—and most expensive—design. Of course, there may be valid instances where

immediate ground-breaking is desired—but this is a costly arrangement. For a job costing $100,000 or more, try to allow at least a year for planning. Never allow less than eight months, even for the simplest building.

• *Give time for bidding.* Developing a bid requires a contractor's measuring every bit of material and gauging every item of labor. It involves careful analysis of how to proceed, which methods to use, and how to coordinate various phases of the work, including subcontracting. To determine his lowest price, (which competitive bidding forces him to do), he must carefully consider and then reconsider his estimate. His final bid is priced to insure him a reasonable profit. If you limit the time for careful analysis, he must bid on first guesses—and they will be high enough to protect him from losing money.

• *Establish a reasonable completion date.* Recently a contract for a $200,000 building contained a clause stating that the building must be completed by January 1. Failure to meet the date called for a heavy financial penalty. The owner, however, delayed awarding the contract until November 1, making the schedule physically impossible and the penalty unavoidable.

Unless the schedule specified allows the contractor reasonable time to complete the building, he will include the cost of the penalty in his bid. Then if he manages to make the deadline, you will have merely paid him an unnecessary bonus.

### Poor Planning Is Expensive

• *Limit alternative plans.* Unreasonable alternatives to your building plans create unreasonably high bids. Asking contractors for alternative prices is reasonable as long as the different specifications are practical and clear-cut. For instance, no contractor would balk at quoting costs for walnut paneling vs. a bare concrete wall. But it isn't practical to ask for a completely different design.

Consider a recent proposal for a building expected to cost $150,000. Plans were drawn up—and the bidders were then asked how much would be saved if the building were made twenty feet shorter. In effect, the contractors had to re-design the building in their minds and figure two jobs from the beginning. On the alternative, they were estimating a job without the aid of plans. Contractors bidding for poorly planned building jobs will protect themselves—with your money.

• *Don't plan for shells.* It is false economy to plan for shell-type construction and figure, "We'll do the heating, finishing, and painting ourselves and save money." On most jobs of this kind, contractors still are responsible for coordinating the plumbing, heating, and electrical work. Building requires cooperation between all the trades. The general contractor is responsible for this

kind of cooperation, whether your men or subcontractors handle the interior work. The general contractor will add the cost of this supervision to his bid.

Furthermore, you become responsible for buying all the equipment and materials to be installed in the shell. Chances are you cannot buy them as cheaply or as wisely as the contractor. So you spend more than necessary—or worse, purchase poor-quality products.

### Put Weather to Work

• *Pick the right season.* There is more to the cost of building than labor and material. Some of the most significant costs are the results of weather conditions during construction.

Frost in the ground can make excavating as difficult and as expensive as removing a deep rock ledge. Freezing daytime temperatures require protection and heating for freshly poured concrete. Low temperatures around brick masonry demand special canvassing and heaters to keep mortar from freezing. Snow indiscriminately hides every piece of construction equipment and material; removal requires hours of labor in shoveling.

Don't disregard a rainy season. Rain may fill excavations with water, which is extremely expensive to remove. Rain will often wash away low-lying foundation work. The contractor may include all these costs in his bidding.

What should you do? Don't schedule large outside jobs for bidding and ground-breaking at the brink of winter weather—not if you want the lowest price for your building.

The ideal time to ask for new building bids is in late winter. Have the understanding that the job will start when the weather breaks. At this time, contracting work is likely to be slow. Contractors can afford to give the greatest amount of attention to their bidding, and they will be anxious to win the first job of the season. Chances are they will bid low.

### Timing Is Important

• *Time inside work.* If you have extensive inside renovations, you can put winter to work for you. Offer the job for bid in the late fall. Contractors are then looking for good inside work. They will shave bids as close as possible in the hope of keeping a good crew intact until spring.

Another advantage is that contractors keep only their best mechanics during the slow periods. The inside winter job will usually benefit in workmanship and time because the most competent men are working.

Conversely, inside work will be bid higher in the spring when the big outside jobs are coming up. At this time, contractors will tie up crews on smaller inside jobs—but you will pay for it. ♦

# Research for the Smaller Company

*Condensed from Printers' Ink*

THE HIGH COST of research and development—which for some giant corporations runs into many millions of dollars annually—frightens many smaller manufacturers. "R&D is for the billionaire company, not for us," these manufacture declare. But they overlook the fact that improvements in products, sales, and marketing can be made by any company of any size that knows how to utilize its own resources.

Moreover, there are many inexpensive outside sources of talent for the company whose budget does not permit full-time research, engineering, or designing personnel. Frequently, these sources are the company's own customers.

G. Heldenbrand & Son, manufacturer of cattle chutes, maintains a large display of customer-inspired modifications of its chutes. The display serves three ways: as an outdoor showroom, as a visible demonstration of the product's ability to take all kinds of weather, and as a record of product improvement.

G. Heldenbrand, the head of the company, reports that his outdoor salesroom helps answer many customers' inquiries. "When a customer asks about some modification, we can tell him that it is already available and has been tested by other customers," he says. "And we can show or describe exactly how his problem was solved." Several requests for a scale that can be combined with a cattle chute led the company to design a chute with a platform scale as its base. Customer suggestions helped here, too.

Improved packaging, more durable finishes for many products, and savings in crating, container, and transportation costs frequently result from research done by suppliers. Best results require an open-minded purchasing department that will refer supplier salesmen with ideas to its own executives, instead of simply saying, "We have no requisitions for your product."

One sales manager reports, "We have a standing rule that any unusual order, whether from an old customer or a new one, be called

to my attention. If an old customer starts ordering a product in steadily increased volume, it may mean he's found some new use for it. If it's a new customer in some line of business we haven't supplied before, an increasing volume indicates something worth investigating."

Alertness to sales developments led the Frito Co. to discover a valuable sales aid and to expand via acquisition. Frito found that one supermarket was consistently buying unusually large quantities of Fritos, a corn snack. A research man was sent to the store and found the reason in a mass display of a peppery spread right beside the Fritos. The two products went together like bread and butter, and sold that way. When Frito salesmen began pushing the joint-display idea, sales increased tremendously—and the Frito Co. purchased the firm making the spread.

### *Watch the Competition*

In every company, someone should watch competitive developments, not simply to spot "copy cat" operations, but to continuously analyze competitive moves that might presage new trends. One meat-packing house, for example, found that gold paper—used by one of its competitors in another product area—enabled it to sell its meat to a new market and capture part of a highly competitive business. Cosmetic, drug, and pharmaceutical firms—borrowing an idea from other consumer products—have learned that a label, sticker, or even a sentence in Spanish will immediately increase sales in all areas where Spanish-speaking people live.

Employees can be helpful allies in a company's marketing efforts. Recently, a fountain-pen and pencil company assigned six employees to go into drug, department, and variety stores and ask to be shown fountain pens. These employees were paid regular rates to do this work on Saturdays and, in some cases, were paid a set sum for reports sent back while they were vacationing.

### *The Payoff*

Analysis of the reports revealed that a competitive pen seemed to be favored by a high percentage of dealers, who gave it a better demonstration; another competitive pen, which the company believed was a real challenge, was considered inferior by most of the dealers; and one of the company's pens was not being shown to best advantage. As a result of the informal research study, the company made changes in presentation, learned a great deal about its competition, and boosted sales.

Testing panels made up of employees and their wives, continuous research on new raw materials, packaging ideas, searches for simple product-improvement ideas—all frequently contribute results equal to those turned in by professional research departments. ♦


# Solving the Problems of Wage Incentives

By John R. Walley

*Condensed from Factory*

A SMOOTH-WORKING incentive plan can boost production by 20 to 30 per cent. It's important, though, to prevent the plan from developing into a giveaway program. By recognizing some of the common kinks and taking the proper action soon enough, you can save headaches and money.

One source of trouble is paying incentives on the basis of past average earnings rather than on established production standards. When this happens, labor costs rise and productivity usually drops to the pre-incentive low—often only 70 to 80 per cent of standard performance. For example, in one job for which there was no production standard, an assembler turned out 20 units per hour. When the job was time-studied, a production standard of 28 units per hour was established. Quite promptly, the assembler was able to turn out 40 per hour.

By determining which jobs are being paid for on this basis, and by

establishing up-to-date time standards for as many of them as possible, you can quickly reduce hidden production losses.

### *Conflict of Interest*

Supervisory incentives can be another headache. Often when a company installs a wage-incentive plan for employees, it tries to obtain cooperation of foremen by paying a bonus in direct relationship to incentive earnings of subordinates.

While this plan seems sound, it actually promotes a conflict of interest. Part of a foreman's job is to create method improvements. If, through them, he increases output, the time-study department must be notified. This normally results in revised production standards, so there is no change in worker earnings. Consequently, the foreman gains nothing. If he dosen't report the change or, being human, forgets about it, his earnings will rise.

An effective solution to this problem is an incentive plan for foremen based on the total amount saved by their combined efforts. Here's how to set it up: List all areas over which foremen exert an influence. These will include labor, raw materials, scrap loss, and the like. On this list, keep track of budget cost, actual cost, total savings, and percentage of savings. At the end of each month, calculate foremen's bonus as a percentage of the total savings. Thus, if the budget allowed $58,660, but only $54,622 was spent, the total savings would be $4038, or 6.9 per cent of the total. This means each foreman receives a bonus of 6.9 per cent of his monthly salary.

Trouble can also arise if the incentive coverage is low. During day-work periods (hours when work isn't measured), employees can work at a leisurely pace. Or they can use these hours to get materials in place, sharpen tools, and plan how to do measured work in the shortest time. Then, when incentive work rolls around, they achieve a high per cent of standard—and you pay an unwarranted cost in incentives. To cure this, you must measure your present coverage and then extend it is much as possible.

Developing standard elemental data through time study can increase your coverage in a relatively short time. Individual studies covering a line of work can be combined, and from these data, tables and charts can be established for easy, quick, equitable setting of production standards. When standard data are used, you can usually measure up to 93 per cent of direct-labor hours.

### *Delays*

The practice of compensating employees for time lost due to unavoidable delays and for personal time is an acceptable one—but it can be costly. Normally an industrial engineer adds a percentage for lost time to the time-study computations. The danger lies in not properly measur-

ing the circumstances before determining the percentage to be added.

To remedy this, you should measure personal and unavoidable delays through time study. Study several representative work days, and record every minute from start to finish. Note all elements of delay and accompanying time lost. Then summarize and review this information with the department foreman, superintendent, and others. In this way you can determine what delays are unavoidable, and you can come up with an accurate percentage to be added.

### *Runaway Earnings*

Excessive incentive earnings can be another source of trouble. The most common cause of this is a gradual loosening of production standards because of unreported changes, methods improvements, or short cuts taken by the operator. In any event, the worker is able to produce more than was originally thought possible when standards were established. Secondary causes for "runaway" incentive earnings may be initially incorrect establishment of standards, relaxation of quality, or deliberate falsification of counts.

When you have to revise a wage incentive plan, there are certain general principles you can follow:

- Don't rush changes. An incentive revision is basically a change in thinking as to output per hour, earnings, and effort. Changes must be paced to the ability of people to accept and absorb them.
- Reach an agreement as to the amount employees will be paid if output on new production standards does not warrant the former pay.
- Use qualified outside counsel to gather facts and present recommendations that will minimize or eliminate special-interest pressures in the event of a basic disagreement.
- Describe the complete proposed wage incentive plan in writing before starting actual revision. Have it made part of the union contract.
- Reach an agreement on what is normal, and establish benchmarks in major departments. This way, arguments over production standards can be restricted to comparison of output on key jobs.
- Provide adequate training in work measurement and in operation of the proposed incentive plan for all persons who will be involved in the revision.
- Avoid changing more than one major department at a time, since adequate supervision and industrial engineering personnel must be available for the first critical week after revision to answer questions, calculate earnings, and instruct workers.
- Make adequate controls part of the revised plan's administrative procedure, so trends can be noted soon enough to make changes for keeping the system fair to both management and the worker.

You can expect grievances when you use wage incentives. If produc-

tion standards are accepted without complaint there's a possibility that someone is too liberal—or worse, that employees have no interest in producing what you feel is an honest day's work.

Setting up a program for company foremen and union stewards is a good way to solve the problem of grievances. With such a program, presented on company premises with actual classroom instruction, foremen and stewards can see their responsibilities in a new light.

Subject matter in such a training program should be practical. Since the purpose of the program is to improve understanding, no attempt should be made to sell company policy. The topics to cover can include: how to analyze an operation for purposes of time study; how to list elements on observation charts; how to calculate allowances for delays; performance rating; calculation of standard time; standard elemental data; use of standard-time values for manufacturing controls; wage-incentive principles; and how to settle grievances arising over time-study or wage incentives.

When the course has been completed, each participant should be able to take a time study and have a practical conception of how wage incentives operate. Companies that use this approach report that as long as foremen and stewards have a good knowledge of how time-study men set production standards and administer wage-incentive plans, most employee complaints can be settled before they become grievances. ♦

## *Recovery in Corporate Profits*

THE UPSWING in business has brought a marked revival in corporate profits from the depressed levels of early 1961, reports the First National City Bank in its Monthly Letter. Net earnings after taxes of 692 leading nonfinancial corporations for the second quarter of this year were up 19 per cent over the initial three months. Earnings nevertheless fell 2 per cent short of the second quarter of 1960. With 1961's weak first quarter, this year's first-half performance was 12 per cent below that of 1960.

In manufacturing, where the recession hit hardest, reports of 519 firms show profits up 23 per cent from the first quarter but down 2 per cent from the second quarter of 1960. First-half profits fell 14 per cent below last year.

The best gains from the first quarter to the second were scored in steel, building materials, and automobiles, where declines of 30 to 40 per cent had occurred from the last quarter of 1960 to the first quarter of 1961. Almost all the steel companies for which reports are available had substantially higher earnings in the second quarter, reflecting the steady recovery in sales and production during the first half of 1961.

# A Program for

# TRAINING MAINTENANCE MEN

**by G. L. Howard**
*Condensed from Textile World*

FACTORY EQUIPMENT is becoming more and more complex. So are maintenance problems. You'll lose many of the advantages of new and improved equipment unless you can train maintenance personnel to keep abreast of new developments.

A few years ago, a good maintenance man could keep most equipment operating without any specialized training. But this has changed. Today's maintenance man is a technician, and his experience must be supplemented with planned training programs.

The first important aspect of a training program is selecting the right men to train. Where do you find them? You can hire people with basic electronic, hydraulic, or mechanical training and train them to handle your maintenance problems. You may have some potential technicians already working for you. You can help your present maintenance men train themselves on their own time to handle new equipment. You can hire graduates from local vocational and technical schools.

If you have to choose between your present employees and newly hired people requiring less training, you'll be better off training your present employees; they have had experience in your plant.

### Three Specialists

For training maintenance men, the average plant—with the usual production-training and maintenance problems, automated machinery, and specialized quality-control equipment — should use three specialists: a training coordinator, a technical instructor, and a skills instructor.

*The coordinator* should sit in on all staff meetings to determine whether or not training is the solution to production problems. He should keep records on each employee showing past training, work history, test scores that indicate potential for new types of work, and

*Textile World (August, 1961), © 1961 by McGraw-Hill Publishing Co., Inc.*

recommendations for training and promotion. He should recommend and develop training programs, interview prospective employees, and work with employment organizations to develop placement tests. He should be responsible for providing a trainer whenever training is required.

*The technical instructor* should have a broad background of training and experience in several technical fields—electronics, mechanics, and the like. A technical instructor who has overspecialized will not be versatile enough to teach maintenance of, say, electronically controlled machinery today and a hydraulically operated press tomorrow.

*The skills instructor* should be able to perform outstandingly on jobs ranging from welding, soldering, and riveting to rewinding an electric motor. He must be able to show and do.

### Teaching Methods

There are three possible methods of instruction: classroom, on-the-job, and a combination of the two. The combination method is the best for most types of technical training in maintenance.

In the classroom, the basics are reviewed, discussed, and sometimes learned outright — such as safety, special design features, operation, and function. Once the trainee has a thorough grasp of the principles of operation, he should be assigned to work on equipment under the guidance of the instructor. During this time, the instructor can do a double job if he is made responsible for maintenance of the equipment.

The next step is to break down the equipment and go into details. If a breakdown is impractical, use pictures and slides of it. If electrical or electronic circuits are involved, cover the schematic diagrams thoroughly. The trainee should identify each symbol with its part and function. The best source of information on new equipment is the manufacturer. Most manufacturers are eager to provide training information and materials.

Training aids are a big help in any maintenance course—but don't use them as a crutch. They should be used to stimulate interest, but their main purpose is to assist the instructor in teaching. There are many types of training aids: slides, transparencies for an overhead projector, movies, animated trainers, functional trainers, and cut-aways. For basic training, movies are excellent. But the best training aid you can use is the equipment—if it is available.

### Trouble-Shooting

In maintaining complex automated machinery, the technician must develop a logical system of trouble-shooting. He begins to develop it during his training period, and his job experience helps him further to develop one that suits his own experience. But it is up to the

trainer to see that trainees learn the ground rules of trouble-shooting: Know the equipment you are maintaining, use your senses to gather the facts, and use your head to come to a logical solution.

You must have tests to measure results—written tests, oral ones, or a combination. They should be prepared specifically and exclusively to test for the knowledge or skill required on the job; tests that ask for inconsequential information are self-defeating.

The purposes of a test are to inform the trainee and the instructor about the progress being made: to point out weaknesses in instruction; to insure that a trainee who fails to acquire minimum efficiency is not accepted as qualified just because he has taken the maintenance-training program; and to provide a record that can be analyzed and used in improving future training programs.

During the training program, there should be several interim tests, covering the subject of each phase of the course and given after each phase is completed. A final test should cover the entire subject. All tests should include as much practical work as possible.

When you complete the program, follow up. Check on the people you trained—they may have questions. This follow-up will also give you a chance to evaluate the program. ♦

## *Attitude Surveys: Follow-Up and Feedback*

MANY COMPANIES now realize that there is little value in making surveys of employees' job attitudes unless they are to be followed up, according to a recent study by the National Industrial Conference Board. The day seems to have passed, the NICB notes, when a company would make a survey "just to see what the situation is."

Companies are giving more and more attention to survey follow-ups, with management displaying more determination to act in this area and to use more skill and know-how in doing so than in the past. Among the techniques widely used are assigning responsibility for follow-up, taking prompt remedial action wherever possible, establishing a time schedule for other actions, and relating remedial measures to the survey findings.

In order to interpret survey findings more accurately, the NICB continues, management often goes back to employees for more information. Feedback is one means of getting that information. Some companies ask for it in written form, but many companies favor group meetings between management and employees for a more effective exchange of information.

Interest in follow-up work may have to be sustained over a long period. Thus, companies say, survey follow-up calls for careful planning by a company's most capable people.

# HOW MANAGEMENT USES Direct Costing

■ **K. S. Axelson**

*Partner*
*Peat, Marwick, Mitchell & Co.*

INTELLIGENT PLANNING and efficient operation demand an effective system for providing timely and accurate cost information. In three areas in particular—profit planning, price structure, and cost control—cost systems play a vital role. For the short term, managers are concerned with the impact of changes in volume, product mix, sales price, and costs; over the longer range, they are involved with plans for introducing new products, for penetrating previously untapped markets, for anticipating the direction and strength of competition, for expanding manufacturing capacity, and for many similar activities. The manager must rely heavily on cost information to formulate his decisions, and, to be worthwhile, any cost system must provide significant

A MANAGEMENT REVIEW SPECIAL FEATURE

information to support and interpret each of these management actions.

Over the years, traditional cost systems have served these ends, but management has constantly been on the lookout for new techniques and methods that would provide a more accurate basis for planning and control. Many executives believe they have found what they are looking for in the relatively new technique of *direct costing*. This system has attracted widespread attention and acceptance. Surveys conducted by the National Association of Accounting, for example, found that 17 companies were using direct costing in 1953, and six years later the number had risen to 197.

Acceptance of direct costing is far from unanimous, of course; the method has come in for its share of sharp criticism. But many corporations that have tried what one company president calls "the greatest tool that ever existed for planning and operating control" have been enthusiastic about it. And the list of converts to direct costing includes some impressive names: American Can, Ohio Rubber, Pittsburgh Plate Glass, Armstrong Cork, Continental Can, and many others.

In view of the growing interest in the potential contribution of direct costing to more accurate management control, and in view of the controversy it has aroused, it might be well to stand back and appraise the system objectively, taking into consideration its strengths and weaknesses in comparison with more conventional approaches.

### What Is Direct Costing?

Direct costing, like traditional absorption costing, relates costs with revenues to determine periodic income. The two methods differ, however, in the way they classify various costs and in the time at which they take them into account.

Under conventional absorption costing, accounts are classified according to the nature of the expense —materials, wages, taxes, etc.—and there is no recognition of any difference between fixed and variable costs. Manufacturing costs, both fixed and variable, are assigned to the products sold during the period to determine a gross margin; manufacturing costs for unsold products are deferred in inventory for treatment in a later period. All non-manufacturing expenses are deducted from the gross margin of the period in which they are incurred.

One disadvantage in this system, of course, is the difficulty of apportioning overhead expenses to products. Usually, an overhead or burden ratio is calculated, to charge both fixed and variable expenses to product costs. Allocations are frequently made on the basis of assumed relationships, and this can give rise to some very complicated procedures as attempts are made to maintain realistic apportionment.

Under direct costing, a distinc-

tion is made between costs that fluctuate directly with production volume (variable costs) and those that are relatively insensitive to changes in volume (fixed costs). Direct labor and material costs, for example, vary with the level of operating activity, but items like depreciation and rent tend to remain constant. This distinction between fixed and variable costs is applied to marketing as well as manufacturing costs. Variable costs are assigned to products when the revenue from those products is realized. All fixed costs are assigned to the period in which they are incurred.

All variable costs of manufacturing and selling are deducted from the revenues from products sold during the accounting period to obtain *marginal income* or *contribution margin*. Net income is then determined by deducting fixed costs from marginal income.

### Different Results

When inventory of manufactured goods fluctuates from one accounting period to another, net income will be somewhat different under the two systems, since the fixed costs of unsold products are deferred in inventory under the conventional absorption method but not under direct costing. When inventory rises, therefore, absorption costing will indicate a greater net income than direct costing; when inventory declines, the net income reported under absorption costing will be smaller. (These differences are brought sharply into focus by the tables at the end of this article, which show operating statements prepared under the two systems.)

To get a better idea of how direct costing works and what contribution it can make to planning and control, we can look more closely at each of the three general areas in which cost systems play an important role: profit planning, price structure, and cost control.

### Profit Planning

Planning future operations to meet established goals is a primary responsibility of management, and many companies have turned to direct costing to improve their planning procedures. Since the volume of production may fluctuate considerably, accurate knowledge of cost-volume-profit relationships at various sales levels will facilitate the evaluation process.

With direct costing, this kind of data may be constructed by (1) applying a cost ratio to each projected sales level to produce a marginal income, and (2) deducting fixed costs to yield a net-income figure. There is a limit to the ranges within which this analysis is valid, since extremely great shifts in volume will also induce variations in the total fixed costs; nevertheless, unit marginal-income figures remain realistic over a wide range of volumes. In contrast, fixed manufacturing costs are absorbed by production under

*"The ability to quote profitable prices quickly can spell the difference between profit and loss . . . Under conventional absorption costing . . . the cost base for quotation is highest at a time when competition is keenest . . ."*

• • •

the absorption-costing method, and unit profit margins are authentic only for the specific volume being considered at the time.

An evaluation of the profit consequences of changes in volume or product mix is facilitated when variable and fixed costs are separated. The cost-profit-volume relationships are readily available in a direct-costing system, but they must be constructed from a special analysis under absorption costing.

#### *Price Structure*

Pricing structure is important in the analysis of the product mix to identify unprofitable lines that should be eliminated and highly profitable lines on which sales effort should be concentrated. Cost may be a starting point in establishing a selling price, but the relationship between cost and price is not an inflexible one, owing to such influences as changing customer demand, the nature of the product, and competition. But whether the price is determined by the market or set by the manufacturer, marginal-income analysis is critical in establishing the lowest acceptable price base; therefore, the better understanding management has of cost-price relationships, the more intelligent its price decisions will be.

As business becomes highly competitive, the ability to quote profitable prices quickly can spell the difference between profit and loss. Generally speaking, when business is good, prices can sometimes be increased, but when orders are slow, price reductions may be in order. Under conventional absorption costing, however, the fixed costs are spread over an increasing number of units as production increases, and the fixed cost assigned to each unit is thus smaller. The reverse is also true: As production drops, each unit must bear a larger portion of the fixed costs. This means that the cost base for quotation is highest at a time when competition is keenest.

Under absorption costing, a company may accept orders at a price that covers material, labor, and a portion of overhead, but unknowingly it may be paying out more in variable costs than it is receiving for the goods. With direct

costing, this cannot happen; management knows that the total variable cost represents the point below which a price no longer contributes to the financial advantage of the business.

### *Cost Control*

It is axiomatic that costs should be controlled by the people with authority to make cost-incurring decisions. Direct costing augments management by exception, since the income statement and supporting documents more readily indicate responsibility in accordance with organization structure. Fixed costs, reported separately, are shifted to the level of management where they belong; the foreman no longer is accountable for depreciation and rent over which he has no control, and the need for allocations is eliminated, to the general relief of all.

Management can analyze operating statements with increased understanding when the facts are subject to a more simplified treatment. Through this focus, the manager can quickly recognize when results are trending out of line and initiate timely corrective action.

Over long periods of time, or with comparatively stable sales levels, both direct and absorption cost systems will produce about the same results. It is when the flow of costs and revenues varies from period to period that the systems fall out of synchronization.

Budgets pose much the same problem as financial statements. The most usual form, the fixed budget, are prepared for a specific anticipated level of activity, which may or may not be realized in the due course of events. When the activity level turns out to be higher or lower than the budget, management is faced with a continual analysis of actual and budgeted results. Some companies have tried to avoid this situation by preparing a series of fixed budgets for many possible operating levels. But it is much more useful to have a flexible budget in which every expense is reduced to its fixed and variable elements. Direct costing is an aid in the construction and use of such flexible budgets.

In general, separation of fixed and variable costs in the accounts and operating reports facilitates the use of standards, budgets, and responsibility reporting for supporting management in its cost-control efforts.

### *Drawbacks of Direct Costing*

Thus far, the strong points of direct costing have been emphasized, but even the best-designed plans have certain limitations.

For one thing, practical obstacles have been encountered by companies desiring to use direct costing for external reports, and it has been rejected outright in most cases as a method for computing federal income taxes. For another, although interest in direct costing is spread-

ing rapidly, many accountants have been reluctant to change from their conventional cost-accounting systems. Detractors of direct costing feel that inventory is undervalued for external reports and tax purposes, since fixed costs are assigned to profit-and-loss during the period in which they are incurred, leaving only variable manufacturing costs in inventory. On the other hand, a few companies have successfully utilized direct costing for external reporting, including stockholder and SEC reports, and for income tax purposes.

Another difficulty concerns the separation of costs into fixed and variable categories. Pure fixed and variable costs are easy to identify, but the large number of costs that have elements of both make classification a perplexing task. Nevertheless, many companies have found that this problem can be resolved if the study is conducted over a number of time periods and some flexibility of classification is exercised.

### *Value to Management*

Depending on which way one turns, a case may be made either for or against direct costing. The middle ground also has many advocates—companies that find direct costing useful internally, but continue to use conventional absorption costing for external reporting and tax purposes.

Direct costing is not a totally new technique that requires a company to make substantial modifications when it is introduced. It is rather a different way of looking at the same facts—a new perspective that can be useful in providing management with effective operating controls and increased ability to plan future courses of action. When costs are split between fixed and variable elements, and significant cost-volume-price relationships for various levels of production volume are obtained, management can gain a clearer understanding of operating reports and cost behavior and more useful data for short-term profit analysis and planning.

### *Which Is Better?*

The ultimate question of which procedure — direct or absorption costing—is most effective cannot be answered, though, without appraising many factors. The real answer lies in which one is more effective for a particular business — which one permits management to make the most accurate evaluation of current conditions within the enterprise and determine with precision the direction in which it should grow.

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**The following two pages demonstrate the differences between direct costing and absorption costing by showing operating statements prepared under the two systems.**

## Direct Costing—A Case in Point

The case of Reliable Manufacturing is a fictional one, of course, but it illustrates the different results realized from application of absorption and direct costing methods to financial statements, particularly when the sales pattern is subject to some cyclical fluctuation.

In comparing net profit from operations, it can be seen that under direct costing, profit tends to increase with sales, without regard to production changes. This works similarly in the other direction when sales are on the decline and agrees with the marginal-income theory of applying variable unit costs and all fixed costs to income before taking a profit.

Interim profits under absorption costing do not fluctuate as widely with marked changes in the sales level. Each product sold carries a charge for fixed manufacturing expense to the cost of sales, whether or not it was incurred in the current or prior periods, and in this way establishes a closer relationship between sales volume and fixed expenses charged to income.

The following example shows the impact of the two costing methods on periodic operating income. For simplicity, profit fluctuations have been restricted to those caused by production and sales-volume changes.

### RELIABLE MANUFACTURING CO.

#### Annual Budget

| | *Total* | *Per Unit* |
|---|---|---|
| Sales | $4,000,000 | $20.00 |
| Cost of Sales: | | |
| Variable Manufacturing Expenses | 2,000,000 | 10.00 |
| Fixed Manufacturing Expenses | 800,000 | 4.00 |
| Total | 2,800,000 | 14.00 |
| Gross Margin | 1,200,000 | 6.00 |
| Selling and Administrative Expenses: | | |
| Variable | 200,000 | 1.00 |
| Fixed | 600,000 | 3.00 |
| Total | 800,000 | 4.00 |
| Operating Profit | $ 400,000 | $ 2.00 |

### RELIABLE MANUFACTURING CO.

#### Unit Production and Sales by Quarters

| | *1st Qtr.* | *2nd Qtr.* | *3rd Qtr.* | *4th Qtr.* | *Total* |
|---|---|---|---|---|---|
| Beginning Inventory | —0— | 1,000 | 2,000 | 7,000 | — |
| Production | 50,000 | 58,000 | 51,000 | 51,000 | 210,000 |
| Sales | 49,000 | 57,000 | 46,000 | 58,000 | 210,000 |
| Ending Inventory | 1,000 | 2,000 | 7,000 | —0— | — |

## RELIABLE MANUFACTURING CO.

### Income Statement Under Direct Costing

| | 1st Qtr. | 2nd Qtr. | 3rd Qtr. | 4th Qtr. | Total |
|---|---|---|---|---|---|
| Sales | $980,000 | $1,140,000 | $920,000 | $1,160,000 | $4,200,000 |
| Variable Mfg. Cost @ $10.00 unit | 490,000 | 570,000 | 460,000 | 580,000 | 2,100,000 |
| Mfg. Margin | 490,000 | 570,000 | 460,000 | 580,000 | 2,100,000 |
| Other Variable Costs @ $1.00 unit | 49,000 | 57,000 | 46,000 | 58,000 | 210,000 |
| Marginal Income | 441,000 | 513,000 | 414,000 | 522,000 | 1,890,000 |
| Fixed Costs: | | | | | |
| Mfg. | 200,000 | 200,000 | 200,000 | 200,000 | 800,000 |
| Other | 150,000 | 150,000 | 150,000 | 150,000 | 600,000 |
| Total | 350,000 | 350,000 | 350,000 | 350,000 | 1,400,000 |
| Net Profit from Operations | $ 91,000 | $ 163,000 | $ 64,000 | $ 172,000 | $ 490,000 |

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## RELIABLE MANUFACTURING CO.

### Income Statement Under Absorption Costing

| | 1st Qtr. | 2nd Qtr. | 3rd Qtr. | 4th Qtr. | Total |
|---|---|---|---|---|---|
| Sales | $980,000 | $1,140,000 | $920,000 | $1,160,000 | $4,200,000 |
| Cost of Sales @ $14.00 unit | 686,000 | 798,000 | 644,000 | 812,000 | 2,940,000 |
| Overabsorbed Overhead | — | (32,000) | (4,000) | (4,000) | (40,000) |
| Total | 686,000 | 766,000 | 640,000 | 808,000 | 2,900,000 |
| Gross Margin | 294,000 | 374,000 | 280,000 | 352,000 | 1,300,000 |
| Period Expense: | | | | | |
| Variable | 49,000 | 57,000 | 46,000 | 58,000 | 210,000 |
| Fixed | 150,000 | 150,000 | 150,000 | 150,000 | 600,000 |
| Total | 199,000 | 207,000 | 196,000 | 208,000 | 810,000 |
| Net Profit from Operations | $ 95,000 | $ 167,000 | $ 84,000 | $ 144,000 | $ 490,000 |

# *Putting Salesmen on the Planning Team*

**By Philip Gustafson**

*Condensed from Nation's Business*

In today's fight for increased profits, many companies are involving the salesman more and more in marketing strategy. They are doing it several ways:

### *Expense Control*

Control of the salesman's expenses is increasingly becoming a matter of self-control. At Schering Corporation, for example, a control plan helps salesmen achieve maximum self-regulation in all types of traveling expense. With it, salesmen keep costs in line with national and company norms and synchronize them with other sales factors.

Every quarter, each sales representative gets a month-by-month report that shows his average cost per day for meals and entertaining, average cost per night in hotels, cost per week for telephone, and so forth. As he reviews the quarter, the salesman can see whether his average expense for any of these items is rising or falling, and he can determine whether he is within a range that he considers acceptable. If he is out of line, he can correct himself.

The reports list prior cumulative expense (Jan. 1 to end of prior quarter), current-quarter expense, and new cumulative expense (January to end of current quarter). After

the salesman is done with them, the reports go to the division manager and the regional manager, then to the national office, which uses them for general directional purposes. It prepares average figures for the various items and issues them to salesmen as new benchmarks.

### Product Development

Marketing leaders today are securing valuable product-development help from their salesmen, and they are gaining appreciation of the practical information that the man on the firing line can provide. Kris Christiansen, marketing consultant for General Electric, explains GE's system:

"We create a product-evaluation team and bring the salesmen in on two phases of the product's development. The first begins when the product has reached little more than the form of functional specifications. The salesmen don't call on customers for specific information until we reach the second phase. That begins when the product has reached preliminary development. At this point, we want to determine the selling points, and we often correct bad faults. This second process gives the salesman a sense of participation that motivates him to push the product harder when it comes out."

In many cases the salesman is a better source of information for competitive analysis than trained market researchers. His judgment is constantly sharpened by bumping up against the competition.

"Once we pulled together a complete picture of a competitor's distribution from reports turned in by 120 salesmen," says Mr. Christiansen, "including its warehousing in the most strategic locations. It put us in a better position to plan and implement our own distribution needs. We have a planned program of sending questionnaires to our salesmen requesting information from them. We get research into how our competitors are marketing their products, how many salesmen they have, and how their products compare as to service, function, and quality."

Mr. Christiansen believes that a composite picture from all salesmen is the best source of information for competitive analysis. However, he points out that it is essential to have salesmen completely sold on the importance of this function. Salesmen often resist extracurricular functions—sometimes with the backing of their district managers. The best way to overcome this resistance, Mr. Christiansen feels, is to enlist the salesman and his boss in over-all company planning.

### *Company Objectives*

Informing the salesman about company objectives and helping him carry them out begins as a philosophy and develops into a pre-eminent part of company operations. The head of management research and

planning for one of our largest consulting firms offers these suggestions for management:

*Define your objectives accurately.* Management must be fully aware of the company's position in the industry, how its product line compares with the competition, what new products are coming, and how they will be timed.

*Make objectives specific.* Objectives must be accurately stated to delineate company interests, rate of growth, and desired profit level.

*Update objectives periodically.* Conditions change, products expire, and new programs must be launched.

As an example, he cites a list of sound company objectives—those of a metal fabricating firm:

1. Expand the gross sales volume to approximately 500 million dollars over the next five years.

2. Operate divisions autonomously within the framework of over-all company objectives and financial control.

3. Provide opportunity for stable employment and individual development and advancement of capable personnel at all levels.

4. Establish a sound organizational structure to attain full coordination of all employee efforts.

5. Improve continuously the quality and utility of all the company's products and services to give customers ever greater value.

Fulfilling company objectives must also be considered from the salesmen's standpoint. Mr. Christiansen describes a system that calls on the salesmen for original delineation of objectives:

"We ask the salesman to turn in a sales plan each year. In this, he tells us how he is going to develop his territory. Also, he makes suggestions as to what management should do. Each salesman has an opportunity during the annual regional meeting to recap his sales plans to both field and headquarters management. Sales executives have an opportunity to answer the salesman and to present headquarters with marketing plans and programs."

### Two-Way Flow

"Certain goals should flow from the salesman. Certain other goals should flow from management. The two should knock heads together in conference and, when a course is finally determined, the details should flow back to the field."

The proprietary division of Lehn and Fink Products Corp. provides an example of how a company involves its field men in sales strategy. Salesmen work with division executives on broad aspects of sales policy and specifically on product development, pricing, advertising, and promotion.

"We have a council of seven regional managers," says Roger Kirk, division manager. "We hold regular council meetings of these managers to decide on marketing matters. Be-

fore and after these meetings, the managers call meetings of their salesmen—before, to tap their experience and opinion; after, to play back council decisions or seek decisions from the salesmen. This two-way line of communication works beautifully."

Authorities agree that a well-integrated information system must be built into company operations if good sales strategy is to emanate from the field. Says a partner in another prominent consulting organization: "Rarely will one salesman or one group of salesmen provide enough authoritative, cross-sectional knowledge to serve as a completely balanced guide for all aspects of a company's marketing strategy. However, with good communications and close working relationships with salesmen of all types in all territories, management can tap a mine of strategic marketing information. Then, by adding its own perspective —not often available to the salesman—it can develop a marketing program embracing both realism and imagination."

This is not done in one day, notes a sales training consultant: "The salesman must be trained to act on his own initiative more than ever before. This training requires time, thinking, and extensive effort by both management and the salesman. The sales representative must begin to think of himself not only as a face-to-face persuader but as a marketing manager—an integrated, well-rounded planner who runs his own business.

"Management must change its concepts, too. It can't pile these new assignments on the salesman without preparation or he'll fall flat on his face. It must teach him how to use his time productively, how to act as a source of marketing information, how to assume the responsibility of advising his customers." It will require six months to a year of training and effort before management can hope to see a noticeable difference. ♦

## *Machines That Talk*

A COMPUTER can now be programed to accept phonetic speech sounds from punched cards, process them, and synthesize intelligible speech or song, reports *Industrial Design*. Although the first sounds are said to be slightly "mechanical," further refinements of the computer program are expected to result in sounds that are indistinguishable from human speech.

Sound comes out of the computer in the form of a magnetic tape, which is then converted into a magnetic sound track for playing on an ordinary tape recorder. Costs are quite high, however, because it takes up to 25 minutes of computer time to produce one minute of synthetic speech.

# Cash Flow: Industry's Thirty-Billion-Dollar Problem

*Condensed from News Front*

THANKS TO THE MAGIC of depreciation and depletion, U.S. industry today is generating capital at a rate of better than thirty billion dollars a year. Last year, the money produced by industry out of its own operations came to almost 75 per cent of its capital requirements.

How best to employ these huge funds is a grave problem facing not merely each company and industry, but the entire national economy. Properly used to develop new products, processes, and markets—to sustain and accelerate research—they can insure a growth rate which can strengthen our economy. But these same funds, spent for sterile or actually harmful purposes (from the point of view of industry as a whole) merely because they are "burning a hole in management's pocket," can slow down the whole process of national development.

Mushrooming of the liquid funds at corporate disposal has led, in the past decade, to a new accounting term to describe them: "cash flow." This means net profit plus allowances, before taxes and as an operating cost, for depreciation of plant and equipment, for depletion of reserves of natural resources, and for amortization of funded debt.

### Aid to Expansion

More and more corporate annual reports (190 out of 600 analyzed by the American Institute of Public Accountants) are referring to cash flow. Xerox, Inc.'s report states: "This extremely important generation of cash from within has aided materially in the expansion of our business." Pennsalt Chemicals Corp. tells its stockholders that cash flow "is the principal means by which future growth of the company is sustained. These are the funds that are available for investment in new plant and facilities, which in turn will provide additional earnings in subsequent years."

Cash flow has risen from 1953's 19.7 billion dollars to this year's estimated 30.5 billion dollars while long-and short-term funds from outside sources have dropped from 10.3 billion dollars to 8.8 billions during the same period. The increase of depreciation, depletion, and amortization—cash flow's principal components—has been spectacular, with the estimated 1961 figure, 24 billion dollars, more than double 1953's 11.8 billions.

### What to Do With Cash Flow

What should a company do with its cash flow? Cash flow can, of course, be used to increase company liquidity, either through time bank deposits or short-term government notes. But this, when carried beyond a comparatively low minimum, is a sterile, stop-gap measure; stockholders and directors grow rightfully indignant when most of a company's financial assets are thus used.

The only permanent way in which these funds can be usefully employed is productive reinvestment. The problem is to determine just what is genuinely productive.

Most cash flow is generated by depreciation and depletion allowances, and must and should be employed, eventually, for new plant and equipment. There are two extremes of such reinvestment. One is accelerated research and development, with the end result being new products and processes which fill previously unsatisfied needs, raise the national standard of living, open up new markets, create new jobs, and enrich the entire economy. At the other extreme are the sterile forms of "vertical integration": the "backward" form (which wastefully duplicates existing production capacity) and the "forward" form (which, similarly, duplicates existing marketing and distribution facilities).

There is, of course, a wide area between the forward and backward forms of vertical integration in which many companies have successfully invested their cash flow. Within this area falls the processing (instead of selling) of by-products. For example, Quaker Oats is turning corn husks into industrial alcohol; Armour and Co. is making detergents from fats and oils; West Virginia Pulp and Paper has moved into the paper-bag field by purchasing Fulton Bag Products.

### *Built-In Headaches*

But vertical integration, particularly forward, has its own built-in headaches. One is the risk of antagonizing—and losing—the regular customers on which company prosperity was built. A construction executive, discussing the move of a major aluminum-producing company into the housing field, states: "I think the company will get burned. Builders resent its move into what is essentially their sector. As a result, some builders may start

ordering their aluminum from competitors."

Vertical integration has begun to attract the attention of the Federal Trade Commission and the Justice Department, particularly where it might lead to monoply under the amended Clayton and Sherman Acts. Forward integration can deprive competitors of markets; backward can choke off supply sources on which competitors depend. Whether there is a compensating benefit for the industry and the whole economy is a question which can only be decided in each case.

Where it genuinely strengthens a company's position, and where this new strength is used to move ahead to penetrate new product and process frontiers, vertical integration can doubtless be beneficial. But where it is merely a disguised form of intercompany and interindustry raiding, a useless duplication of already more than ample productive capacity, there can be no doubt it is harmful.

Corporate cash flow has become a major U.S. asset and, used for research and equipment to develop and produce new products, will become an even greater one. Its proper use is the essential responsibility of free enterprise, which generates it. ♦

## *The Boom in Highway Plant Sites*

NEWLY CONSTRUCTED, ultramodern highways now crisscross the nation, paving the way for fast, effective motor freight service for highway shippers, notes *Shipping Management*. That's why more and more companies are locating their plants and distribution facilities adjacent or as close as possible to these new major arteries.

In the Northeast, for example, the states of Pennsylvania and Ohio will soon complete links between the New York Thruway and the Ohio Turnpike. When they do, firms near the Thruway will be close to a thousand-mile artery stretching from Chicago to Boston without a single traffic light, steep grade, or sharp curve. Other superhighways now under construction in the same part of the country will eventually link the entire section, as well as the eastern part of Canada.

One major advantage of the superhighways is safety. Thirty drivers for General Electric, for example, ply the New York Thruway on regular runs to plants in New York, Philadelphia, Syracuse, and Erie. With their trucks covering a million miles a year, these drivers have never had an accident.

One trucker using the superhighways reports other economies. On a round-trip test run between Albany and Long Island, he found that using the New York Thruway enabled him to cut full stops 73 per cent, brake applications 62 per cent, and gear shifts 55 per cent. The savings in travel time, fuel consumption, and maintenance costs were equally impressive.

## *The Power of Positive Giving*

THE PALM THAT'S OUTSTRETCHED for the nearly 500 million dollars a year in corporate contributions may belong to any number of worthy causes. But it could also belong to a con man selling phony ads or a small politician who's pushing tickets to an obscure benefit.

How do corporations and executives tell which it is, and how do they handle the whole subject of giving? In hope of getting some answers, the Toledo, Ohio, Chamber of Commerce recently held a conference on corporate giving, reports *Business Week*.

"The appetite of those seeking corporate funds is apparently insatiable," said Edward C. Ames, public-relations director for Owens-Illinois Glass Co. "By actual count for one month, for example, Owens-Illinois received 189 requests for contributions, ranging from a boys' club in Georgia to a college in Texas."

No company can act wisely and consistently on such requests unless it has a set policy and its officers are thoroughly indoctrinated in it. Frank T. Judge, Jr., corporate contributions administrator for Ford Motor Co., warned against citing "budget" in denying a request. "Any fund-raiser worth his salt, having received a 'no' for budget reasons, invariably will thank you and request consideration in your following year's budget," he said.

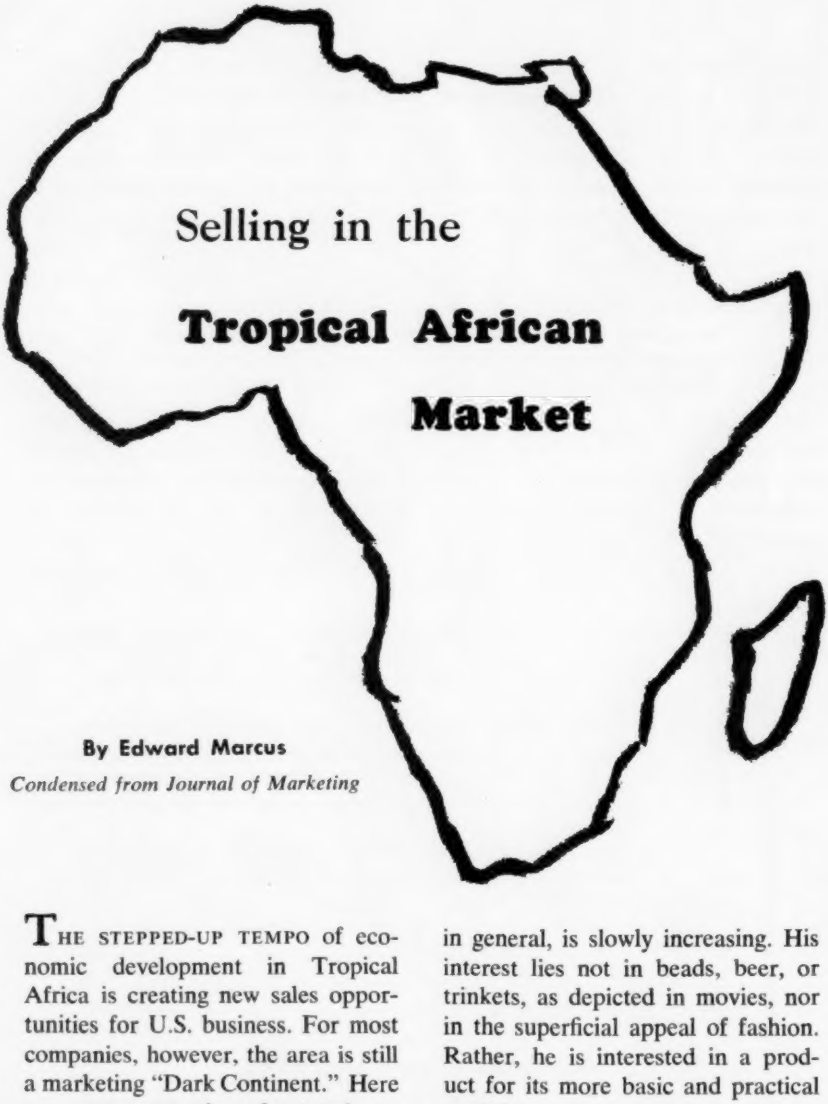
Instead, Judge advised, executives in charge of giving should apply policy as judiciously as possible to create good will even when turning down a request. He urged, in addition, that they never consider requests made by telephone.

Panel speakers touched on problems that arise from pressure from a company's own officers or its customers. Many considerations enter each company's policy on this—and, indeed, on all aspects of corporate giving. "It shows," said one speaker, "that this whole business is not a science, and we can't make it one."

"I can't tell you the formula for success," noted William F. Leonard, manager of corporate relations for Olin Mathieson Chemical Corp. "But I can tell you the formula for failure: Try to please everyone."

## *Advanced-Study Incentives*

AN ACADEMIC-LEAVE program is designed to increase research effectiveness at Westinghouse Electric Corp., Pittsburgh, notes *Industrial Relations News*. The plan permits outstanding professional personnel at the company's research laboratories to carry out individually planned research and study at any university or nonprofit institution of their choice anywhere in the world. Researchers receive their annual salary while on the one-year leave for advanced study.



# Selling in the **Tropical African Market**

**By Edward Marcus**

*Condensed from Journal of Marketing*

THE STEPPED-UP TEMPO of economic development in Tropical Africa is creating new sales opportunities for U.S. business. For most companies, however, the area is still a marketing "Dark Continent." Here are some suggestions for tapping a market already importing several billion dollars' worth of goods.

The African, first of all, is a sophisticated buyer, whose income, in general, is slowly increasing. His interest lies not in beads, beer, or trinkets, as depicted in movies, nor in the superficial appeal of fashion. Rather, he is interested in a product for its more basic and practical qualities.

The African market is constantly changing. For this reason, it is important for a foreign firm to keep in constant contact with the African

*Journal of Marketing (July, 1961), © 1961 by the American Marketing Association.*

consumer and to follow the impact of his increased income on his tastes. For this, a local sales representative of the company is often inadequate. Located in the large coastal cities, he tends to think in terms of the urban tastes of his immediate surroundings—tastes which reflect the more prosperous African community. The much larger market in the rural villages and surrounding farms represents Africans who are emerging more slowly into the modern world, or are first getting cash income to spend on consumer products. Although they are simpler and poorer than the urban Africans, in the aggregate they may spend more than those in the few cities.

#### *Trade Levels*

Trade in Tropical Africa is handled at three levels, reflecting to a large extent participation of the three main racial groups. There are the large European units which import the country's needs and export its produce. In addition, they are usually secondary distributors, selling to the smaller wholesalers, retail shops, and the foreign resident group. At the next level are the smaller wholesalers—often Levantines in West Africa and Indians in East Africa. They link the importers and the small retailer. This last level, wherein most African (native) enterprise lies, serves the final consumer and taps the rural sectors. Of course, this racial demarcation is only a generalization.

An exporter or manufacturer seeking a sales agent in Tropical Africa should select one who is competent and has a sense of responsibility. Unfortunately, many local dealers have foundered because they have overreached themselves, either by undertaking too great a volume of operations or by offering credit unwisely.

#### *A Company Branch?*

A costlier way to reach the market would be to establish a company branch in Tropical Africa, from which shipments could be made directly to the distributor. These units could serve as storage centers and might even serve as a base for local fabrication. However, experience indicates that even if the eventual market is large enough to justify such an operation, losses will probably be suffered for the first three to five years.

A possible and practical compromise might be employing traveling salesmen who would call on as many local dealers as feasible, help the sales agent obtain orders, offer sales pointers to the retailer, and get their opinions in return.

A good representative would become an intelligence outpost. He would get to know the peculiarities of the territory, enlighten the supplier with market data, and smooth the way for necessary modifications in either the product or the sales appeals. He could also transmit to the manufacturer information about

developing economic trends that might affect credit payments.

### Tailoring Promotional Aids

The local distributor will need help in selling, since he will not be familiar with the product's specific sales appeals. Such help, however —particularly in respect to advertising and point-of-purchase promotion—must be geared to the peculiarities of the market. For example, the use of dogs in advertisements displayed in regions that despise these animals or the use of white models in a color-conscious region can damage future sales. Also, low literacy is common in rural Africa; thus symbols and pictures are more significant than words and themes. Words may misfire because the African's knowledge of the language is often limited. To cope with this problem, Singer Sewing Machines has developed a wordless instruction book.

### Inventory Size

One problem to be resolved is the size of inventories the agent shall carry. His desire, naturally, is to minimize his stock, for it represents tied-up capital that could be used for trade in other items. Yet he must carry sufficient stock to fill orders without too great a delay. New deliveries from abroad take a long time; this prevents using the foreign source for quick refills.

A possible compromise would be for the manufacturer to carry the local inventory—perhaps in a bonded warehouse, if there is one locally. Payment would be made by the distributor only as the goods were released to him. Thus both the financial and physical burden could be shared between the two.

### Transport Time

The importance of transport time for Africa cannot be exaggerated. Only high-value items can be flown in; most goods must still go by water, and this is slow. Moreover, handling charges at the African ports are high; a study some years ago showed that they added 15 per cent to transport costs. For this reason, the African-based representative must depend heavily on the manufacturer's reliability. The agent cannot pick up the telephone to correct an error. A wrong shipment cannot be replaced immediately, nor can defective merchandise be exchanged quickly.

For the same reason, one outlet cannot serve a wide territory—for example, all Tropical Africa, or even only West or East Africa. Land transport routes do not permit easy passage of goods from one country to another, local air transport is expensive, and coastal boats often are slower than freighters from the head office abroad. A shipment from Mombasa on Kenya's east coast to Freetown on the bulge of West Africa could well take longer than freight service operating directly from New York or London.

For technically complicated items, like heavy equipment, service and repair are most important. No one wants an idle machine awaiting some necessary adjustment; yet the local sales agent may have neither the machine tools nor the knowledge for proper maintenance. Because of transport difficulties, new parts tend to be a costly source of delay, and flying in a serviceman is too expensive. Moreover, the original overseas supplier may be the only man who has the needed replacement part if other manufacturers selling in the same market design their equipment to different specifications. As a result, the manufacturer may have to train an employee of the distributor specifically for this service task.

There is an acute shortage of skilled help throughout Africa; most companies must train raw recruits in order to solve the need for mechanics. It may even be good policy for the overseas manufacturer to pay part of the repairman's wage in order to insure his being available, thus assuring the ultimate consumer that he need not worry about the possibility of an idle machine. ♦

## *Courting New Ideas*

THE MATING CALL of the mosquito and other natural phenomena are being studied these days for their possible contributions to the world of business, writes Thomas W. Bush in *The Wall Street Journal.*

In efforts to improve their products or develop new ones, more and more companies are taking lessons from the natural faculties possessed by nature's creatures. As a result, biologists are enjoying increasing popularity among manufacturers of such products as rockets and radios.

Lockheed Aircraft Corp., for example, is laying out some $400,000 this year for prying into the secrets of bugs, plants, and animals; this is about ten times the amount spent for the same purpose in 1956, according to Dr. Lewis Larmore, Lockheed's chief scientist.

What does Lockheed do with this money? Among its various biological programs, the company is putting about $20,000 a year into the study of the mosquito. Biologists say that when a mosquito wants to go courting and spots a likely-looking mate, it vibrates its wings rapidly to produce a hum—the mosquito's version of a wolf whistle. If the second mosquito is favorably inclined, it responds the same way. Lockheed wants to know how mosquitos can hear each other—sometimes more than 150 feet apart—against such background noise as wind, buzzing of other insects, humming power lines, and factory whistles. The answer, says Dr. Larmore, could clear up a lot of problems of background noises that often hamper man-made communications.

# Labor, the Law, and Plant Relocation

*Condensed from Industrial Relations News*

THE SIREN CALL of cheaper labor, tax advantages, and community gifts in the form of new plants has enticed many companies to move their plants and offices from one part of the country to another. Recently, however, such shifting has become increasingly troublesome and expensive. The growing opposition of unions and plant communities to companies planning to relocate elsewhere has caused many managements to review their decisions and to take a hard look at relocation schedules.

A pair of recent court decisions on relocation cases have been particularly significant. The decisions are both under appeal; but if they're upheld in higher courts, they'll have a tremendous effect on a company's decision to relocate.

Briefly, the courts hold that a worker has a "vested" right to seniority in a job he's held for a number of years—a right which doesn't end with the termination of a labor contract, even if his union ceases to represent him in bargaining. When an employer moves to another geographical location, the courts say, he has to rehire—on the basis of seniority — those workers laid off during the transition period.

The nation's labor unions see in these decisions an important opportunity to slow the steady loss of jobs to non-union workers or to competing unions. Here's a summary of the two decisions:

• In the first case, one company shut down its processing plant in Elmhurst, N.Y., and reopened in Bethlehem, Pa. Employees charged that despite the expiration of their Teamster contract, they were entitled to transfer with full seniority rights. By a two-to-one

decision, the U.S. Second Circuit Court of Appeals ruled that seniority is a "vested" right "earned" by long-time employees of a company. It is the equivalent of "valuable unemployment insurance" and incapable of being "unilaterally annulled."

- In the second case, which concerns a manufacturing company that has made plans to move from Detroit to Lebanon, Tenn., U.S. District Judge Fred W. Kaess ruled, "Collective-bargaining agreements grant employees certain benefits and rights that become vested in the sense that they cannot be unilaterally denied without the employees' consent."

### New Policy

These two decisions threaten to upset a long-standing policy of some companies regarding management-rights clauses in union contracts. That policy is to avoid pinning down management's inherent prerogatives. Some companies may now want to bargain for contract clauses defining—and limiting—their responsibilities to workers displaced by relocation. One study of 400 contracts indicates that only 20 per cent affirm the right of management to close a plant, relocate, or build new facilities eleswhere.

An example of how such a provision can benefit management can be seen in the record of a dispute between the International Union of Electrical Workers and Vickers, Inc., Detroit. The union asked the courts to issue a temporary injunction barring the company from moving its operations in Michigan to other states. U.S. District Court Judge Kaess ruled that the agreement, which expired a year ago, specified that its terms did not extend to plants outside the Detroit area. Vickers could, the court held, refuse to honor the contract's seniority and transfer clauses. And the court said it did not have the authority to stop the company from selling its plants or moving from one plant to another.

### Union Gains

Unions already have secured many favorable relocation provisions in their agreements. Generally, these limit management's right to move its operations, or they protect employees when such a move occurs. An Amalgamated Clothing Workers contract with a trade association states that relocation is banned for the duration of the contract.

An International Ladies Garment Workers Union contract with the National Dress Manufacturers' Assn., New York City, prohibits any move past the last stop on the city's public transportation system. Other union-won contract clauses: a minimum of thirty days' notice before moving; relocation permitted only if there is full local employment; and layoffs in Northern plants of multiplant companies to be matched

by layoffs in their Southern factories.

Unions look to arbitration to plug the loss of jobs through relocation. Many contracts, says Gabriel Podlofsky, research director of the American Arbitration Assn., provide that any labor-management dispute is arbitrable. Although these contracts may not mention relocation, it, too, may be arbitrable. And a series of Federal Court rulings last year considerably strengthened the role of arbitration in labor-management disputes. They provide for virtually automatic enforcement of arbitration awards in federal courts, except where fraud or other gross improprieties are alleged.

### *Right to Manage*

Under the U.S. Labor Management Relations Act, an employer has the right to run his business —wherever he wants. However, his decision to move must not be based on a desire to avoid bargaining or recognizing a union. When economic considerations dictate a move or shutdown, a company won't get hit with a violation. According to Ivan McLeod, a regional director of the National Labor Relations Board, it's a good idea to give the union notice of a forthcoming move within a "reasonable time."

If a transfer is sprung on a union, the NLRB might construe it as a refusal to bargain. This happened last year to one manufacturer who shut down his Philadelphia plant and opened a new one in Ware Shoals, S.C.

### *Maintaining Productivity*

Available studies indicate most companies give notice of plant transfer three to twelve months in advance. But once the word is out, the company has another problem: maintaining productivity among employees who may soon be out of work.

This worry is shared equally by non-union and unionized concerns. Given a free choice, between 30 and 50 per cent of employees will select transfer when first asked; about 25 per cent of these will change their minds when it's time to move. The men who usually choose to stay are those at either end of the age spectrum; a majority of men between the ages of 25 and 45 will chance the move.

### *Coordinating the Move*

The industrial relations/personnel department and public-relations department should help plan and coordinate any move. The announcement should be given the broadest possible circulation, accompanied by a detailed timetable and program to ease the impact on the community. Walter V. Ronner, vice-president of industrial relations for Lewyt Corp., N.Y., suggests that companies set up relocation centers to help employees find new jobs.

Ads in local papers and well-publicized approaches to other companies in the area serve two main functions: Suitable jobs will be turned up, and employees will want to finish their assignments and turn in top performances in order to get recommended for the new jobs. If the company neglects to sell employees and the community on its desire to effect a smooth transition, then boycotts, wildcat strikes, and militant citizens' committees may seriously disrupt the move. ♦

## *Visual Stock Control Cuts Costs*

A VISUAL STOCK-CONTROL system has cut costs for paperwork, personnel, and accounting machines for three British factories, reports *Target,* bulletin of the British Productivity Council.

Formerly, stock control of 27,500 items at three plants of British Nylon Spinners, Ltd., was handled by machine posting. This involved ledger cards for each item—for recording receipts and issues, amount in stock, ordering quantity, and minimum stock to be maintained. Handling the operations required three posting machines, three operators, and six clerks. In many cases, costs of the paperwork exceeded the value of the stock item.

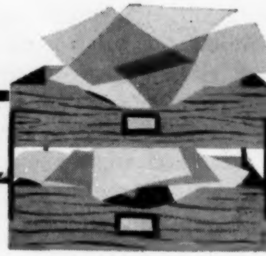
Visual control of certain items—mainly noncritical ones, like nuts, bolts, washers, protective clothing, cleaning supplies, etc.—has cut these costs. Here's how the system works:

Each item is stocked in three groups: *a minimum stock* (enough to meet normal demand until an existing order can be delivered), *an ordering level* (enough to meet normal demand until an order can be placed and delivered through normal procedures), and *a free stock* (everything above the ordering-level quantity).

Each stock group is tagged with its own color adhesive tape. For example, red tape is affixed to the box (or boxes) constituting the minimum stock; yellow tape is attached to those for the ordering level. When items are stored loose, then the tapes are attached at the appropriate levels on the bins.

Two cards are used in the control system: a colored order card (showing the unit, code number, specification, and ordering quantity) and a white "urgent" card (showing the unit, code number, specification, and minimum stock). Both are stored in a plastic pocket (with the colored order card on top) and stored with the item. When the free-stock supply is exhausted and the ordering level is reached, the order card is sent to Purchasing. The material is ordered and the card is returned to the bins; it's placed *beneath* the "urgent" card, where it remains until the material is delivered. Then it's replaced on top. If there's a delivery hold-up or an emergency, and the minimum stock must be used, then the "urgent" card is sent to Purchasing.

# ALSO RECOMMENDED



*summaries of other timely articles*

## GENERAL

**COMMERCE SECRETARY HODGES . . . PRO OR ANTI BUSINESS?** By Hobart Rowen and Gerald J. Barry. *Newsweek* (444 Madison Avenue, New York 22, N.Y.), July 24, 1961. 25 cents. Has Hodges, as one industrialist charges, "gone over from management's team to the liberal side?" Or is he, as others suspect, becoming the first strong Commerce Secretary since Herbert Hoover made the office a springboard to the Presidency? According to this article, there is something to be said for both views. In any case, Hodges' hard-sell program has achieved results: The first U.S. Trade Center for continued display of American products was recently opened in London; six international trade fairs were held this spring; and information on how to export was brought to businessmen who had never thought much about the idea before.

**CAN FREE ENTERPRISE COME BACK?** By Jack J. Friedman. *Dun's Review and Modern Industry* (99 Church Street, New York, 8, N.Y.), July, 1961. 75 cents. Looking at the nation's economy, a forum consisting of nearly 300 leaders of U.S. industry and finance sees one grave threat: indifference to the slow erosion of our competitive system. Some call for a discipline in business ranks similar to that in labor unions; others suggest that business anticipate and meet the needs of the people to avoid government encroachment; and a minority advocate more central planning of the economy by the government, even though they complain about oppressive government regulation in certain areas of industry. On the question of protective tariffs, a surprising four out of seven panelists were firmly opposed to them.

**THE FORTUNE DIRECTORY: Parts I and II.** *Fortune* (Fortune Directory, Room 2063, Time & Life Building, New York 20, N.Y.), July and August, 1961. Reprint 25 cents. Part I gives information on each of the 500 largest U.S. industrial corporations as well as combined statistics: For instance, cumulative sales last year for the 500 were 4 per cent above the 1959 total; but combined profits, totaling 11.6 billion dollars, were 3 per cent below the previous year's figure. Part II includes a listing of the 100 largest foreign industrial firms, and of the 50 largest U.S. commercial banks, life-insurance companies, transportation companies, utilities, and merchandising

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firms. The directory suggests that the top foreign industrials had a much better year than the top U.S. firms; both their sales and their profits were up strongly over 1959.

**HOW TO PROTECT YOUR FIRM AGAINST EXECUTIVE PIRATES.** *Management Methods* (22 West Putnam Avenue, Greenwich, Conn.), July, 1961. Reprints 50 cents. "Even if all the executive recruiters were killed in an accident, there wouldn't be any change in the amount of executive turnover," says one of three executive pirates who tell how to protect against men like themselves. The article shows why a company is vulnerable to executive pirates, how professional manhunters pry a man loose, and what companies can do to hold on to key executives. "The strongest inducement you can offer," says one pirate, "is an opportunity for the man to run his own show."

**THE UPCOMING UPSURGE IN GROWTH.** *Business Week* (330 West 42 Street, New York 36, N. Y.), June 17, 1961. 50 cents. Output per man-hour, which had slipped to 2 per cent, is headed toward a level well above its former 3 per cent, according to a new study by the National Planning Association. The step-up will result primarily from the growing efficiency of new capital equipment, which is no longer offset by the necessity of rapidly increasing the nation's stock of capital. This means that the U.S. can accelerate its growth rate without increasing the proportion of national income going into plant and equipment investment, explains the article.

## FOREIGN OPERATIONS

**NEW INCOME WITHOUT CAPITAL—LICENSE YOUR PRODUCT OR SERVICE ABROAD.** *Management Methods* (22 West Putnam Avenue, Greenwich, Conn.), July, 1961. Reprints 50 cents. In answer to recent criticism of licensing agreements, whereby a foreign company sells a U.S. company's product or service on a fee and royalty basis, an expert in foreign licensing defends the practice and tells how it can be used to create new income. Included is a listing of basic considerations and kinds of clauses that have general application and use—subject to variations in specific instances—that are frequently contained in such license agreements.

**COMMON MARKET: INNER SIX—SEVEN? EIGHT?** By Peter Landau. *Newsweek* (444 Madison Avenue, New York 22, N.Y.), July 17, 1961. 25 cents. Key to a possible coalition of the great trading blocs of the free world is Britain, which sees an even rosier economic future as a member of Europe's booming Common Market; other nations, from Europe and outside, could follow its lead. This article examines the prospects, problems, and political impact involved—for one thing, Britain will have to agree to tariff barriers against all "outsiders," including the Commonwealth nations — and concludes that even though U.S. interests might suffer temporarily from such a move, in the long run the greatly expanded market created would materially increase demand for U.S. products.

**BELGIUM: MARKET, COMPETITOR, AND INVESTMENT BASE.** Based on "Rundt's Market Report No. 312." *Steel* (Penton Building, Cleveland 13, O.), July 10, 1961. Reprints gratis. Though Belgium

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must lick some thorny problems—political, economic, and sociological—it is becoming more and more important to U.S. industries, according to this article, which analyzes developments and directions there in industrial activity, investment, currency, government, world trade, and so forth. Its sound industrial and agricultural base, hard working populace, good natural resources, and essentially stable administration make its prospects for growth good.

## INDUSTRIAL RELATIONS

**PROGRAMMED LEARNING: THE COMING REVOLUTION IN JOB TRAINING.** *Industrial Relations News* (230 West 41 Street, New York 36, N.Y.), June, 1961. $1.00. In the late 1920's an educational psychologist invented a teaching machine that gave examinations and kept track of errors; today, the principles involved are being successfully applied, in the form of programmed learning, to teaching people in training and development programs. This article reports on specific applications of programmed learning in various companies, compares results from teaching machines with those from regular classroom methods, gives the costs of different teaching machines, and discusses steps toward standardizing them.

**USING SALARY ADMINISTRATION COMMITTEES EFFECTIVELY.** By G. K. Warner, Jr. *Personnel Journal* (100 Park Avenue, Swarthmore, Pa.), July-August, 1961. 75 cents. When the salary administrator or personnel manager is unhappy with the functioning of the salary administration committee, the trouble may well be at least partially with his own failure to cooperate, according to the author, who explains how such a committee should function. He discusses the purpose of the committee, responsibility of the salary administrator, administration for the benefit of the company, and administration for purposes of cost control.

**SPECIAL INDEX OF SAFETY FILMS.** *National Safety News* (425 North Michigan Avenue, Chicago 11, Ill.), June, 1961. $1.10. This special 56-page section lists more than 1100 films on safety and the related fields of fire prevention, first aid, and civil defense. Grouped under eight major headings (industrial, motor transportation, traffic, home, farm, public, school, and TV clips and spots), the index describes the subject matter of each film, gives pertinent technical information, and indicates its source and the terms under which it may be obtained.

## PRODUCTION

**HOW TO GET MORE FROM HIGH SPEED STEELS.** By Dr. George A. Roberts and Dr. John C. Hamaker, Jr. *Steel* (Penton Building, Cleveland 13, O.), June 12, 1961. Reprints gratis. Four achievements in high speed steels are making some of the commonly used handbook data on machinability obsolete, according to this article, which discusses the effect they have on tooling applications. They are: (1) super-high-speed steels (high carbon, high vanadium) that fill the gap between conventional high-speed steels and the carbides and ceramics; (2) free machining grades that make it easier to manufacture tools

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and give a better surface finish to some cutters; (3) the 68 to 70 Rockwell C grades that facilitate cutting hard, heat-treated materials; and (4) special surface treatments that reduce friction and improve tool performance.

**ELECTRICAL SAFETY GUIDE TO HAZARDOUS PROCESS AREAS.** By Richard W. Scott. *Chemical Engineering* (330 West 42 Street, New York 36, N.Y.), July 10, 1961. Reprints 50 cents. Electrical installations must not cause accidental ignition of flammable liquids, vapors, and dusts released to the atmosphere—and, since they are often used outdoors or in corrosive atmospheres, their material and finish must be such that maintenance costs and shutdowns are minimized. Designed to help companies achieve these objectives, this guide takes up the classification of areas by degree of hazard; the selection, installation, and maintenance of the proper electrical equipment; and new trends in wiring methods and materials. Included are ways in which agencies and equipment manufacturers can help improve safety practices.

**A PROGRAM FOR PLANT LUBRICATION.** By Charles L. Pope. *Factory* (Reader Service Department), (330 West 42 Street, New York 36, N.Y.), July, 1961. The plant without a lubrication program can chalk up from 10 to 20 per cent of its annual maintenance to lubrication, according to the author, who cites the following typical savings effected by his company's program: a 35 per cent reduction in pump maintenance and a 1½ per cent reduction of capital investment on standard fans running 24 hours a day. He explains how to set up a lubrication program, how to purchase and store lubricants, how to lubricate machines properly, why good record-keeping is necessary, and how to solve lubrication problems.

## MARKETING

**CONSUMER MOTIVATIONS IN BLACK AND WHITE. Parts I and II.** By Henry Allen Bullock. *Harvard Business Review* (Soldiers Field, Boston 63, Mass.), May-June and July-August, 1961. Reprints $1.00. Based on an intensive analysis of the responses of over 1600 Negroes and whites to various psychological tests and depth interviews, part I of this article discusses how buying patterns of both Negroes and whites reflect each race's cultural system and how advertisers have so far taken a distorted approach to the Negro as a consumer; it describes how insecurities felt by both races influence behavior in the marketplace and shows how, in each case, the consumer trades money and credit for security. Part II challenges businessmen to apply these insights by creating an "integrated" marketing program to reach the 17 million Negro consumers.

**LEARNING HOW THE MIND RECEIVES.** *Printers' Ink* (635 Madison Avenue, New York 22, N.Y.), June 30, 1961. 35 cents. Two years of research in basic communication, conducted by a Pennsylvania State University team commissioned by the Television Bureau of Advertising, have so far yielded findings that cast considerable doubt on many assumptions that now govern advertising and other communication fields. Here are some of the questions raised: Are many advertisers catching and holding the viewer's attention, but still not getting their message across? Is the effectiveness of a

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message doubled if it is delivered both by picture and by voice—or could the two channels interfere with each other? Are there basic flaws in techniques used to check the effectiveness of TV commercials? Does the viewer use the same labels as the advertiser—"Western, family comedy"—to describe programs?

**NEW WAY TO SIZE UP HOW CONSUMERS BEHAVE.** *Business Week* (330 West 42 Street, New York 36, N.Y.), July 22, 1961. 50 cents. Marketing research has taken a turnaway from traditional motivational research that probes the individual consumer's psyche and toward the dynamic research method that elicits natural responses of consumers in group discussions. The method is based on an interview between a dynamic researcher and a group, with only the gentlest nudge from the researcher about his specific problem; though many researchers are enthusiastic about it, others complain that they cannot control the group and that results are especially poor in an artificial group where members don't know each other.

## RESEARCH AND DEVELOPMENT

**BUDGET AND COST CONTROL IN RESEARCH AND DEVELOPMENT.** By T. L. Wilson. *Research Management* (250 Fifth Avenue, New York 1, N.Y.), Summer, 1961. $2.00. Based on the budget cost and control system in use at the Research Center of the United States Rubber Company, this article deals with the setting up of objectives for such a system, the mechanics of producing budget and control records, the use of cost control records in planning, and the cost of operating the system. One highlight of the system: The over-all research budget is presented in terms of project costs, and the control information is accumulated in such a way that, at any time, actual costs can be compared with forecasts.

**URETHANE FOAM.** By Richard Burton. *Industrial Design* (18 East 50 Street, New York 22, N.Y.), July, 1961. $1.50. Urethane foam, nearing a 300-million-pound market, attracts designers because of its chemical and mechanical variety —it is the most versatile of all foamed plastics, is a superbly competent cushioning material and thermal and acoustical insulating medium, and it floats. This article discusses in detail various aspects of the material—types, physical and chemical properties, applications, etc.—and gives two disadvantages: It is expensive (but the price is expected to come down soon) and under spray-in-place application conditions, its components are toxic. Photographs illustrate various applications.

**RECRUITING SCIENTIFIC PERSONNEL.** By Gilbert Kelton. *Personnel Administration* (715 G Street, N.W., Washington 1, D.C.), July-August, 1961. $1.25. Should you use kid gloves? Offer the treasure chest of a pirate? Provide for special, "prima donna" treatment? Scientific and technical personnel *are* in great demand, but such elaborate recruiting practices are detrimental, according to the author, who pinpoints various poor recruiting practices and tells how to remedy them. He discusses preinterview, interview, and postinterview periods and recommends policies for top management, technical management, and personnel management to adopt in recruiting scientific personnel.

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## SURVEY OF BOOKS

*for executives*

# Financing the Future

*LONG-TERM FINANCING.* By John F. Childs. Prentice-Hall Inc., Englewood Cliffs, N.J., 1961. 369 pages. $15.00.

*Reviewed by John A. Griswold**

This book is a practical guide for the financial decision-making required of executives responsible for setting policy. In ten appropriate chapter divisions it covers the three broad topics of financing, investor relations, and cost-of-capital.

Capital has classically been regarded as one of the factors of production, but it has come to have added significance in our present economy because most citizens, including both labor and management, are investors, either directly as owners of securities, or indirectly, as savers in investing institutions. Thus, because capital is the factor of production provided by society as a whole, the management of capital, based on wise long-term financing decisions, is not only essential to the success of every individual business unit but, as is not always recognized, to the welfare of the country as a whole.

In placing long-term financing problems before the reader, the author asks five basic questions:

- How much debt should a company have?
- How and when should securities be sold?
- How can good investor relations be maintained?
- How can profit goals be established?
- How can cost-of -capital be calculated, and how can this measure be used?

The answers he develops in this book derive from his years of experience as financial advisor to many large corporations and from his well-known and well-attended Wall Street seminars for executives.

His opening topic of discussion is the firm's capital structure, the cornerstone of financial policy. In Chapter 2, he shows that security values are

* Professor of Finance, The Amos Tuck School of Business Administration, Dartmouth College, Hanover, New Hampshire.

founded on earnings and are themselves basic to the financial executive's decisions about what the firm's capital structure should be. Because debt is a "cheap" form of capital and relatively easy to obtain, the first vital question immediately arises: How much debt is "right"?

In answer, Mr. Childs demonstrates that a company is best served by a conservative financial structure—one that maintains the value of all securities in good standing. A good general test of conservative structure lies in the debt-securities ratings of such agencies as Moody's and Standard & Poor's. More specifically, the following guides to a sound structure are offered: (1) low debt ratio with high agency rating; (2) use of as much debt as possible consistent with (1); (3) use of a variety of sources of capital; and (4) use of the correct concept of cost-of-capital.

Within the space of a book review, it is not possible to trace each well-defined and practical step in Mr. Childs' discussion of the various phases of security sales, corporate relations in the financial community, and investor relations. It may be appropriate here, however, to deal briefly with one of the book's concrete contributions to business thinking—namely, its treatment of the cost-of-capital concept. Where theoreticians have tended to confuse the businessman, Mr. Childs presents a clear-cut discussion along with a simple calculations method and a demonstration of how the measure can be a valuable guide in establishing profit goals.

Cost-of-capital is shown to be, in effect, a weighted average of the earnings-price ratios of all types of securities in the corporate structure. For fixed-return securities, these ratios are relatively simple to find. The real problem arises in finding the "cost" of equity. This, too, can be reduced to an earnings-price ratio, but the ratio is of a very special kind that reflects the corporation's standing with the investing public.

There is much disagreement about this type of measure. What time periods and averages should enter into the calculations? What earnings figure should be used for the numerator of the ratio? Should it be an average of the past, or should it include a forecast of future earnings? And if both past and future data are used, how should they be weighted? What should be the denominator of the earnings-price ratio? (Certainly not a "spot" price.)

Mr. Childs deals with the time problem of this special ratio by recommending averages of data for as much as five to ten years in the past, a length of time that undoubtedly reflects his extensive experience in the utility field. The use of so long a span is certainly open to question, even though one accepts the principle of using average earnings and average prices. It hardly seems realistic to calculate the current cost-of-capital on a basis that includes earnings and price data from an economic world that may no longer exist. In fact, one can easily recall some recent ten-year periods in which economic circumstances changed so much as to make inclusion of data from the beginning of the decade nearly meaningless, if not misleading. A shorter period in

the backward time span—three years, say—would perhaps give a better reflection of "current" investor attitudes toward a company or an industry.

It is a convention of book reviewing that the reviewer, no matter how wholeheartedly (as in this case) he agrees with the principles set forth by the author, points out some faults in the book at hand. It must be noted, therefore, that haste or carelessness on the part of the publishers has necessitated the inclusion of an inconvenient errata sheet. No doubt this flaw will be corrected when the book goes into the second edition, which it well deserves.

One error, not included among the errata, is the following misstatement, which appears on page 51: "If current earnings are not sufficient to cover the dividend payment, then past accumulated earnings in earned surplus will have to be used." This phrasing implies a sort of retained-earnings fund from which dividends could be paid. In point of fact, dividends are paid from cash, which must be provided by the management of company assets. Earned surplus merely provides the legal basis for the payment.

In spite of these minor flaws, *Long-Term Financing* deserves thorough study by every financial executive. Application of the principles and practices it sets forth should strengthen any company's financial standing. ♦

# Briefer Book Notes

*(Please order books directly from publishers)*

## GENERAL

**THE PROCESS OF MANAGEMENT: *Concepts, Behavior, and Practice.*** By William H. Newman and Charles E. Summer, Jr. Prentice-Hall, Inc., Englewood Cliffs, N.J., 1961. 675 pages. $10.00. In this text the new insights from the behavioral sciences and decision theory are integrated with the traditional ideas about the work of managers. More specifically, the authors' aim, in their own words, "is (1) to use the new ideas to refine and recast concepts about managing, (2) to present the revised propositions in simple, nontechnical language and from the utilitarian viewpoint of a present or potential executive, and (3) to include enough case material and examples so that a careful reader can sense how the ideas can be applied to real-life situations."

**AN INTRODUCTION TO ELECTRONIC DATA PROCESSING FOR BUSINESS.** By Leonard W. Hein. D. Van Nostrand Company, Inc., 210 Alexander Street, Princeton, N.J., 1961. 320 pages. $7.50. Assuming no background knowledge, this text for business students begins with six chapters introducing computers and their basic functions. The next two chapters use

this material in working out two simplified data-processing problems. These are followed by material on basic file maintenance, merging and collating, sorting, and report-writing; and the final chapter deals with advanced programing concepts.

**PROGRESS IN OPERATIONS RESEARCH, VOLUME I.** Edited by Russell L. Ackoff. John Wiley & Sons, Inc., 440 Park Avenue South, New York 16, N.Y., 1961. 505 pages. $11.50. The first publication in a review series that will inventory the mathematical techniques and research methods available to operations researchers, this volume focuses on technical progress, i.e., the development of modeling techniques and their application to problem-solving. It consists mainly of articles surveying and evaluating the technical progress made so far in eight important areas: inventory theory, linear and dynamic programing, queuing theory, sequencing theory, replacement theory, simulation, and gaming.

**POSTWAR ECONOMIC TRENDS IN THE UNITED STATES.** Edited by Ralph E. Freeman. Harper & Brothers, 49 East 33 Street, New York 16, N.Y., 1961. 384 pages. $6.00. This new publication in the American Project Series of M.I.T.'s Center for Internal Studies consists of ten essays on subjects ranging from the evolution of the economy as a whole to changes in specific industries and from international economic relations to the distribution of income among individuals and families.

**INDUSTRIAL PURCHASING: *Buying for Industry and Budgetary Institutions.*** (Second Edition.) By J. H. Westing and I. V. Fine. John Wiley & Sons, Inc., 440 Park Avenue South, New York 16, N.Y., 1961. 534 pages. $9.50. This edition focuses on purchasing policies rather than procedures and includes new material on ways of coping with the rising cost of transportation, the materials-management concept of organization, value analysis, quality- and quantity-control procedures, and antitrust and administered pricing. In addition, 35 brief cases dealing with specific purchasing problems have been inserted at the ends of the various chapters, and the original text has been brought up to date.

**THE PLAYSCRIPT PROCEDURE: *A New Tool of Administration.*** By Leslie H. Matthies. Office Publications, Inc., 232 Madison Avenue, New York 16, N.Y., 1961. 183 pages. $5.95. Mr. Matthies, a well-known systems and procedures man, explains his method for writing intelligible and effective procedures. He also tells what a procedure is, what makes a good procedure, and how existing procedures can be analyzed and improved.

**ENGINEERING MANAGEMENT.** (Second Edition.) By Struan A. Robertson. Philosophical Library, Inc., 14 East 40 Street, New York 16, N.Y., 1961. 467 pages. $10.00. A British text directed at engineering students and dealing with management in general and the management of an engineering manufacturing business in particular. This edition puts more

emphasis on executive decision-making than did the first and also includes material outlining the general principles of operations research and cybernetics. In addition, the reading lists have been revised to cover recent publications.

**THINKING MACHINES:** ***A Layman's Introduction to Logic, Boolean Algebra, and Computers.*** By Irving Adler. The John Day Company, Inc., 210 Madison Avenue, New York 16, N.Y., 1961. 189 pages. $4.00. This lucidly written book begins by using the familiar numbers of everyday arithmetic to introduce the notion of algebra, then goes on to explain the binary scale of numerals and why it is used by electronic computers. From a brief course in the essentials of logic it progresses to Boolean algebra and its use in designing circuits that can calculate and perform deductive reasoning.

## FINANCE

**PRINCIPLES OF FINANCIAL ANALYSIS.** By Robert H. Wessel. The Macmillan Company, 60 Fifth Avenue, New York 11, N.Y., 1961. 376 pages. $7.50. This text for introductory college courses in the field of finance emphasizes the analysis and solution of practical business problems. Each chapter is followed by pertinent case material, most of it fairly simple and clear cut. Major divisions deal with the techniques of financial analysis, sources of financing, the process of financing, basic financial decisions, and adapting the financial structure.

**ACCOUNTING IN BUSINESS DECISIONS.** ***Theory, Method, and Use.*** By Homer A. Black and John E. Champion. Prentice-Hall, Inc., Englewood Cliffs, N.J., 1961. 812 pages. $10.60. Emphasizing the use of accounting data by various levels of business management, this text is directed at students and practitioners of professional accounting as well as at generalists. Its early chapters offer a broad view of the purposes, theory, and methods of accounting, and the succeeding parts analyze the use of accounting information in appraising, planning, and controlling business operations. Each chapter concludes with problems and case material.

## MARKETING

**SALES PROMOTION:** ***Principles and Methods for Intensifying Marketing Effort.*** (Second Edition.) By Alfred Gross. The Ronald Press Company, 15 East 26 Street, New York 10, N.Y., 1961. 504 pages. $8:50. A discussion and analysis of the fundamentals of effective promotion and merchandising, illustrated with many references to successful programs. The sales-promotion function is described on three distinct levels—working with the dealer, stimulating demand, and working within the marketing division—and a final section deals with special areas of sales promotion.

**REALITY IN ADVERTISING.** By Rosser Reeves. Alfred A. Knopf, Inc., 501 Madison Avenue, New York 22, N.Y., 1961. 155 pages. $3.95. The chairman of the board of Ted Bates & Company sets forth his own theories about advertising. The writing is lively and the tone is hard sell.

**A FOOT IN THE DOOR.** By Alfred C. Fuller, as told to Hartzell Spence. McGraw-Hill Book Company, Inc., 330 West 42 Street, New York 36, N.Y., 1960. 251 pages. $4.50. The founder of the Fuller Brush Company, who is, by his own admission, a distinctly atypical twentieth-century industrialist, tells his life story and explains his moral and religious convictions with humor, candor, and obvious sincerity.

## Publications Received

*(Please order books directly from publishers)*

**ECONOMICS.** (Fourth Series, No. 3.) By R. L. Smyth. The National Book League, 32 East 57 Street, New York 22, N.Y., 1960. 30 pages. Single copies, 75 cents.

**NUMERICAL METHODS FOR SCIENCE AND ENGINEERING.** By Ralph G. Stanton. Prentice-Hall, Inc., Englewood Cliffs, N.J., 1961. 266 pages. $9.00.

**ECONOMIC THEORY AND OPERATIONS ANALYSIS.** By William J. Baumol. Prentice-Hall, Inc., Englewood Cliffs, N. J., 1961. 437 pages. $9.00.

**PROPERTY AND CASUALTY INSURANCE.** By Curtis M. Elliott. McGraw-Hill Book Company, Inc., 330 West 42 Street, New York 36, N. Y., 1960. $6.00.

**PROBLEMS IN BASIC OPERATIONS RESEARCH METHODS FOR MANAGEMENT.** By Randolph W. Cabell and Almarin Phillips. John Wiley & Sons, Inc., 440 Fourth Avenue, New York 16, N. Y., 1961. 110 pages. $3.95.

**THE RESEARCH REVOLUTION.** By Leonard S. Silk. McGraw-Hill Book Company, 330 West 42 Street, New York 36, N. Y., 1960. 244 pages. $4.95.

**COMPUTER LOGIC: *The Functional Design of Digital Computers.*** By Ivan Flores. Prentice-Hall, Inc., Englewood Cliffs, N. J., 1960. 458 pages. $12.00.

**ADVERTISING.** (Third Edition.) By Albert Weseley Frey. The Ronald Press Company, 15 East 26 Street, New York 10, N.Y., 1961. 600 pages. $7.50.

**1961 GUIDEBOOK TO CALIFORNIA TAXES: WITH SPECIAL EMPHASIS ON RELATIONSHIP TO FEDERAL TAXES.** (Twelfth Edition.) By Russell S. Bock. Commerce Clearing House, Inc., 4025 West Peterson Avenue, Chicago 46, Ill., 1960. 348 pages. $4.00.

**A CLASSIFICATION OF BUSINESS LITERATURE.** (Second Edition.) Prepared by The Library of the Harvard University Graduate School of Business Administration. The Shoe String Press, Inc., 965 Dixwell Avenue, Hamden 14, Conn., 1961. 256 pages. $6.00.

**CREDIT AND COLLECTION LETTERS: NEW TECHNIQUES TO MAKE THEM WORK.** By Richard H. Morris. Channel Press, Inc., Great Neck, N. Y., 1960. 295 pages. $5.95.

# Q&A on AMA

**Q.** *I am program chairman for our group's forthcoming convention. Can AMA help us secure a qualified speaker for this meeting?*

**A.** The Association does not maintain any form of "speakers bureau." It would be an abuse of AMA's long-standing relationship with its members for the staff to attempt to commit these busy executives to appearances before other groups.

The selection of a qualified and effective speaker for a particular meeting is a difficult process. The nature, interests, and objectives of the group must all be weighed and matched with the knowledge, skill, and "approach" of a prospective speaker. It is hazardous for a third party that lacks familiarity with all the facts to imply an endorsement of an individual for a specific speaking engagement.

* If you have any questions about AMA's program or policies, please submit them to AMA's Member Relations Department. All inquiries will be answered promptly. Those questions of most general interest will appear in this feature in subsequent issues of *Management Review*.